Zebra® ZXP Series 3™ Card Printer

User's Manual

P1032297-001 Rev. A

ZEBRA TECHNOLOGIES

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1

Getting Started

This manual contains installation and operation information for the Zebra ZXP Series 3 Card Printer, manufactured by Zebra Technologies Corporation.

The printer provides full color dye sublimation or monochrome thermal transfer printing on standard 2.125 inch by 3.375 inch (54 mm by 86 mm) PVC or PVC Composite plastic cards. The integrated card feeder and flipper minimizes printer size while maximizing performance. Load-N-Go™ ribbon cartridges are used with an integrated card cleaning roller for easy ribbon changing or replacement.

A variety of options (some of which can be factory-installed or field-installed as upgrades) are available, making the printers configurable for varied application environments:

- Magnetic Encoder
- USB only or USB and 10/100 Ethernet
- Contact + Contactless MIFARE Smart Card
- Contact Station
- CardSense™ Single Card Feed Option
- Security (Enclosure Lock) Option

Its auto-switching 100 ~ 240 Volts AC, 50 ~ 60 Hz external power supply uses inter-changeable power cords for maximum flexibility.

This manual describes single- and dual-sided ZXP Series 3 Card Printers. References to “the printer” in this document apply to either the single-sided or the dual-sided printers.

ZXP Series 3 Part Numbers

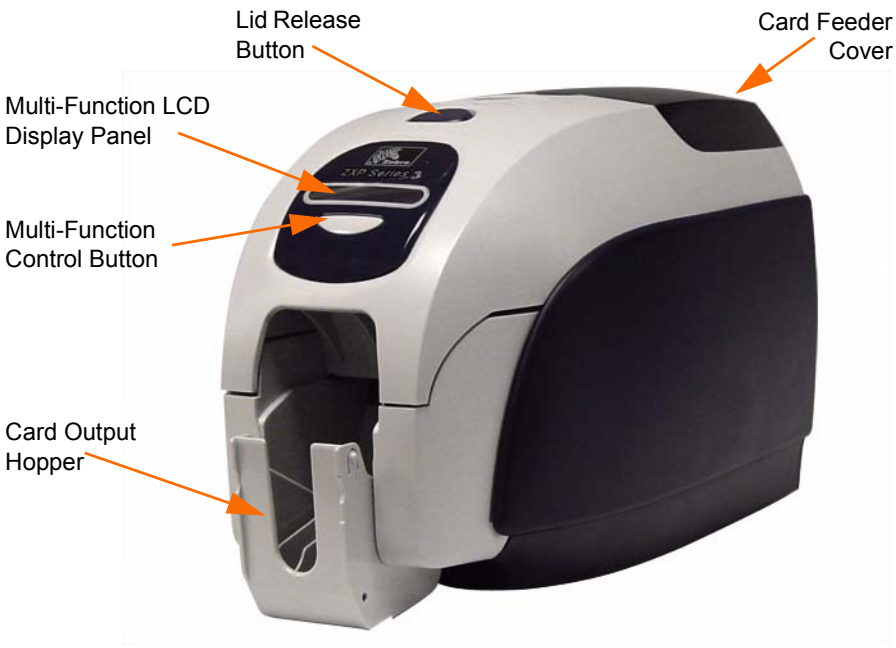
The Part Number of a particular Zebra ZXP Series 3 Card Printer is shown on a label affixed to the bottom of the printer; that Part Number identifies the specific configuration for that printer. This chart shows the configurations that are available:

PART NUMBER	DESCRIPTION
Z 3 _ - _ _ _ _ _ _ _ _ _ _ _ _ _	**BASE UNIT**
_ _ 1 - _ _ _ _ _ _ _ _ _ _ _ _ _	Single-Sided
_ _ 2 - _ _ _ _ _ _ _ _ _ _ _ _ _	Dual-Sided
	SMART CARD OPTIONS
_ _ _ - 0 _ _ _ _ _ _ _ _ _ _ _ _	None
_ _ _ - A _ _ _ _ _ _ _ _ _ _ _ _	PC/SC Contact Encoder + Contactless MIFARE, NOTE
_ _ _ - E _ _ _ _ _ _ _ _ _ _ _ _	Contact Station, NOTE
	MAG ENCODER OPTIONS
_ _ _ - _ 0 _ _ _ _ _ _ _ _ _ _ _	None
_ _ _ - _ M _ _ _ _ _ _ _ _ _ _ _	ISO HiCo/LoCo Mag S/W-selectable, NOTE
	SECURITY OPTIONS
_ _ _ - _ _ 0 _ _ _ _ _ _ _ _ _ _	None
_ _ _ - _ _ A _ _ _ _ _ _ _ _ _ _	Enclosure Lock, NOTE
	INTERFACE OPTIONS
_ _ _ - _ _ _ 0 _ _ _ _ _ _ _ _ _	USB Only
_ _ _ - _ _ _ C _ _ _ _ _ _ _ _ _	USB & 10/100 Ethernet, NOTE
	SOFTWARE / KIT
_ _ _ - _ _ _ _ 0 _ _ _ _ _ _ _ _	None
_ _ _ - _ _ _ _ G _ _ _ _ _ _ _ _	Starter Kit: Monochrome (Incl: 1 Monochrome Ribbon, 200 PVC Cards)
_ _ _ - _ _ _ _ H _ _ _ _ _ _ _ _	Starter Kit: Color (Incl: 1 YMCKO Ribbon, 200 PVC Cards)
_ _ _ - _ _ _ _ I _ _ _ _ _ _ _ _	Starter Kit: Dual-Sided Color (Incl: 1 YMCKOK Ribbon, 200 PVC Cards)
	MISCELLANEOUS
_ _ _ - _ _ _ _ _ 0 0 0 _ _ _ _	None
_ _ _ - _ _ _ _ _ 0 0 A _ _ _ _	Made in America
	COUNTRY CODE
_ _ _ - _ _ _ _ _ _ _ _ B R _ _	Brazil Power Cord
_ _ _ - _ _ _ _ _ _ _ _ U S _ _	Americas Regional SKU Power Cord (Type B)
_ _ _ - _ _ _ _ _ _ _ _ E M _ _	EMEA Regional SKU Power Cords (Type C and Type G)
_ _ _ - _ _ _ _ _ _ _ _ A U _ _	Australian Power Cord (Type I)
_ _ _ - _ _ _ _ _ _ _ _ C N _ _	China Power Cord, 240 VAC
_ _ _ - _ _ _ _ _ _ _ _ J P _ _	Japan Power Cord, 120 VAC Cord (PSC Compliant)
	CUSTOM CODE
_ _ _ - _ _ _ _ _ _ _ _ _ _ 0 0	State / Province / Project / Other
ACCESSORIES	
105862-001	CardSense™ single card feed option
105999-301	Cleaning Kit: 4 printer-path and 4 feeder cleaning cards

NOTE: Field-Upgradeable Option

Features, Controls, and Indicators

The picture below points out some of the printer's external features; see Section 3 for an interior view.

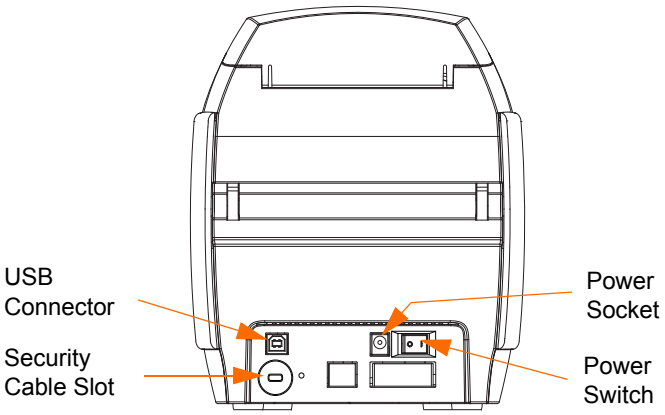


- **Card Feeder Cover** - Opening the Card Feeder Cover gives access to the automatic card feeder. The translucent cover allows you to see when the card supply is running low. The feeder has a 100-card capacity.
- **Lid Release Button** - Pressing the Lid Release Button allows the printer's lid to swing open. This gives internal access for changing the Ribbon Cartridge, changing Cleaning Rollers, and cleaning the printer.
- **Multi-Function LCD Display Panel** - The Multi-Function LCD Display Panel displays printer status information. Messages also alert the user of the need for action and indicate certain fault conditions.
- **Multi-Function Control Button** - The Multi-Function Control Button initiates several functions; these are described in the appropriate sections of this document.
- **Card Output Hopper** - Front-side Card Output Hopper has a 100-card capacity. Note that ZXP Series 3 Card Printers with a Smart Card Option have a different Card Output Hopper; see Appendix C.

Rear Panel Connectors

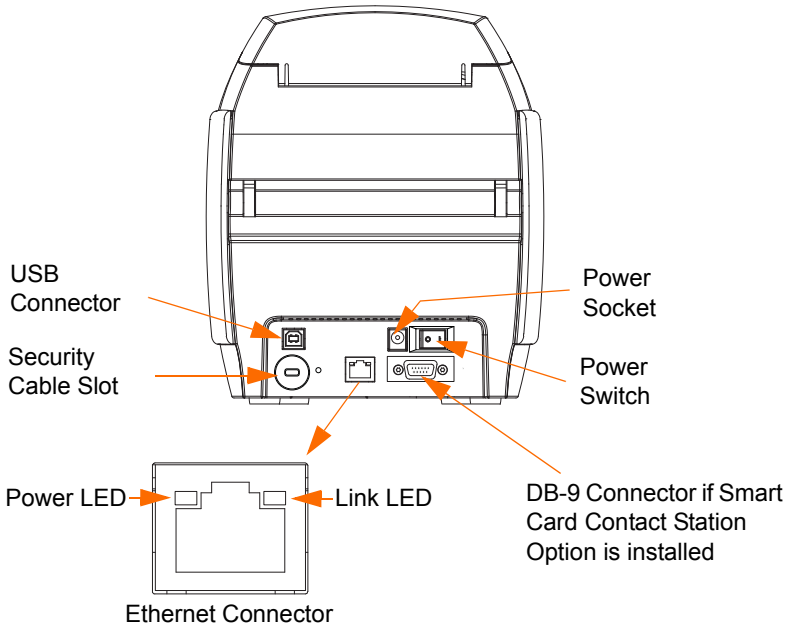
Standard USB Connection

The figure below shows the rear of the Printer with the USB interface.



Ethernet Connection

The figure below shows the rear of the printer with the standard USB interface with the Ethernet and DB-9 Smart Card Contact Station Options.



The Ethernet Connector has two LED status indicators:

- Power LED (amber): When illuminated, indicates power is on.
- Link LED (green): When illuminated, indicates valid Printer-Ethernet connectivity.

Multi-Function LCD Panel

Your printer is equipped with a Multi-Function LCD Panel to provide printer status information. The readout is controlled by the Multi-Function Control Button directly below the viewing window.

Multi-Function LCD Panel messages fall into three categories: Operational, Warning, and Error.

Operational Messages

Operational Messages are displayed during the Printer's normal operation.

OPERATIONAL
CARD READY
CLEANING PRINTER
CLOSE FEEDER DOOR
CONTACT ENCODING
CONTACTLESS ENCODING
DOWNLOADING DATA
DOWNLOADING FIRMWARE
EMPTY FEEDER THEN CLOSE COVER
FEED LONG CLEANING CARD IN EXIT
INITIALIZING
INSERT CARD
INSERT FEEDER CLEANING CARD
MAG ENCODING
PRINTING BLACK
PRINTING CYAN
PRINTING MAGENTA
PRINTING MONO
PRINTING OVERLAY
PRINTING YELLOW
PUSH BUTTON TO CONTINUE
READY
REMOVE FEEDER CLEANING CARD
REMOVE LONG CLEANING CARD
REMOVE RIBBON THEN CLOSE LID
SINGLE CARD READY-PRINT OR EJECT

Warning Messages

Warning messages alert the operator to action that should be taken; the printer will generally continue operation.

WARNINGS (Printer will still operate)
CHECKING RIBBON
CLEAN PRINTER
CLOSE LID
ENCODING ERROR
FLASH ERROR
INVALID MAGNETIC DATA
READING ERROR

Error Messages

Error messages are displayed when a situation causes the printer to stop operating. Depending on the cause of the error message, restarting the printer or curing the displayed Error may return the printer to operational status, or the printer may require troubleshooting and repair.

ERRORS (Printer will not operate)
CHECK RIBBON
COMMAND ERROR
COVER OPEN
LID OPEN
MECHANICAL ERROR
OUT OF CARDS
OUT OF RIBBON
PARAMETERS ERROR

Icons

Throughout this manual, different icons highlight important information, as follows:

Note • Indicates information that emphasizes or supplements important points of the main text.

Important • Advises you of information that is essential to complete a task, or points out the importance of specific information in the text.

Provides an example or scenario to demonstrate or clarify a section of text.

Electrostatic Discharge Caution • Warns you of the potential for electrostatic discharge.

Electric Shock Caution • Warns you of a potential electric shock situation.

Hot Surface • Warns you of a situation where excessive heat could cause a burn.

Caution • Advises you that failure to take or avoid a specific action could result in physical harm to you, or could result in physical damage to the hardware.

Product Disposal

Product Disposal Information • Do not dispose of this product in unsorted municipal waste. This product is recyclable, and should be recycled according to your local standards. For more information, please see our web site at:
http://www.zebra.com/environment

2

Printer Installation

Unpacking Your Card Printer

Your ZXP Series 3 Card Printer ships in a cardboard carton, protected by styrofoam inserts and a protective anti-static bag. Keep all packaging material in case you need to move or re-ship the printer.

Step 1. Before opening and unpacking the printer, inspect the carton to ensure that no damage occurred during shipment.

Step 2. Ensure that you have a clean and nearly dust free environment for proper operation and storage of the printer.

Step 3. Unlatch and remove the handle, open the carton, and remove the box containing the printer accessories from the shipping carton.

Step 4. Remove the styrofoam packing material from the top of the printer.

Step 5. Lift the printer out of the carton by holding it on both sides of the bottom and lifting the printer gently from the carton.

Step 6. Make sure the following accessories are included with your printer:

a. Software CD-ROM
b. Quick Start Guide
c. Cleaning Kit
d. Power Cords (one or two depending on the configuration)
e. Power Supply
f. USB Printer Cable

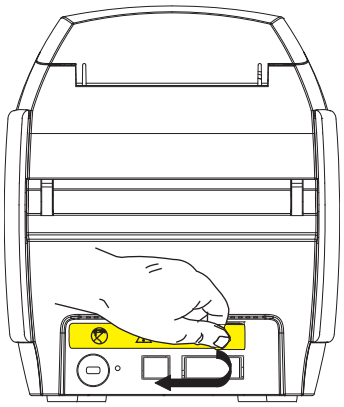
If any items are missing, please contact your dealer. To reorder; refer to Appendix F of this manual.

Installing the Printer

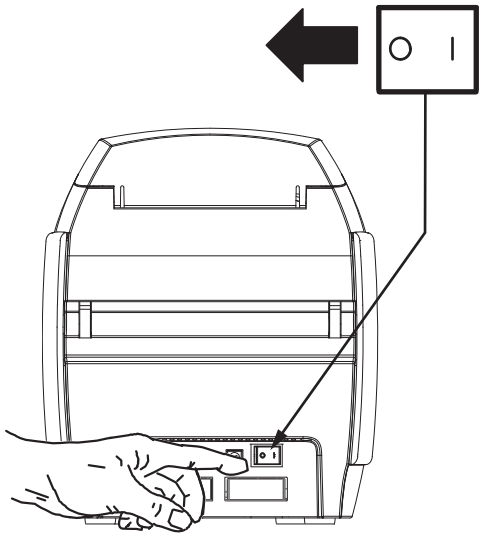
Setting up the Printer

Step 1. Place the printer in a location that allows easy access to all sides. The printer should never be operated while resting on its side or upside down.

Step 2. Remove the yellow CAUTION label from the back of the printer.



Step 3. Ensure that the printer's power switch is in the OFF (O) position.

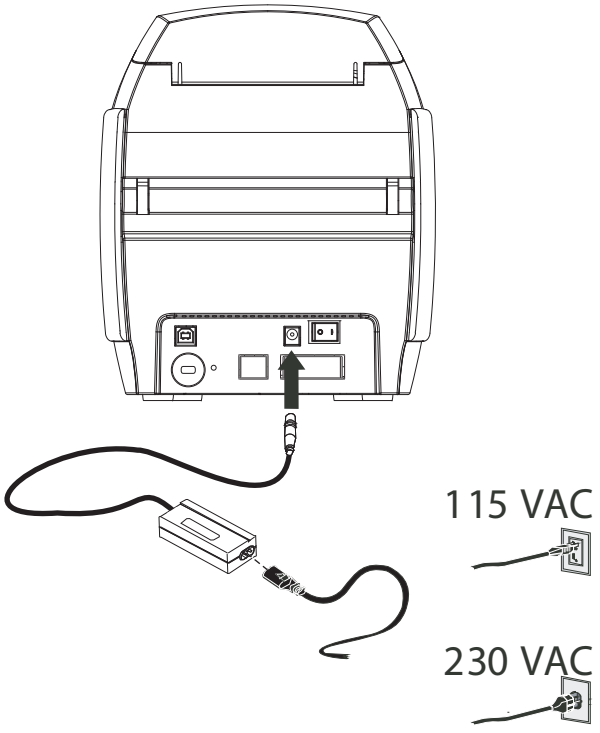


Connecting Power

Caution • Limit electrical power supplied to the printer to 24 VDC. Limit excess current draw to 16 amps or less, using an associated circuit breaker or other such device. Never operate the printer in a location where operator, computer, or printer can get wet. Personal injury could result. The printer must be connected to an earthed electrical power supply and properly protected against electrical surges and grounding faults. The power supply pack can only be replaced by the same product from the manufacturer.

Caution • Do not power the printer with USB attached to your computer at this time. THE DRIVER WILL PROMPT YOU WHEN IT IS TIME TO PLUG IN AND POWER UP YOUR PRINTER.

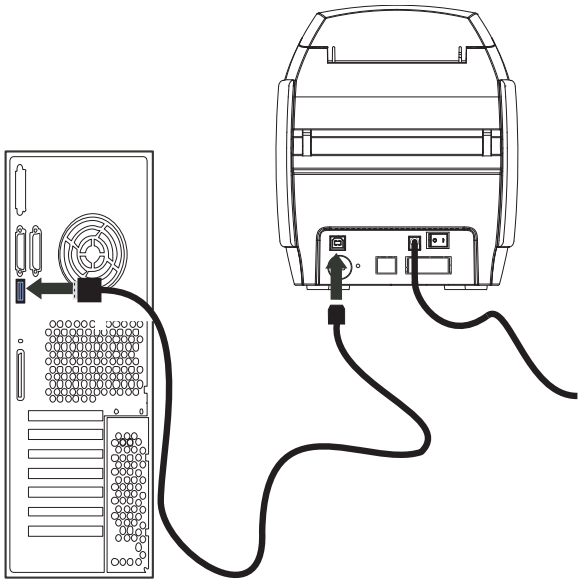
Step 1. Insert the power supply plug into the power socket, attach the power cord (120VAC or 230VAC) to the power supply, then plug the power cord in to a grounded electrical socket of the proper voltage and type.



Step 2. Ensure that the printer's power switch is in the OFF (O) position.

Connecting the Printer to your Computer

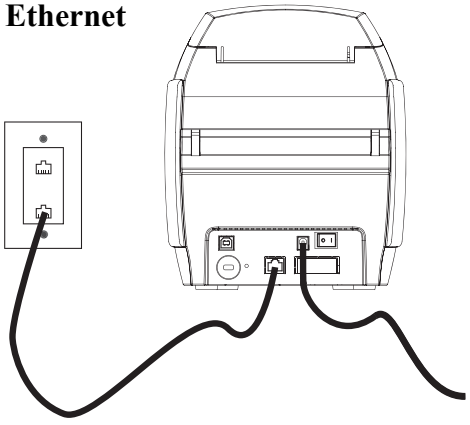
Step 1. If your printer has only the USB interface, attach the included USB cable to your computer and the printer.



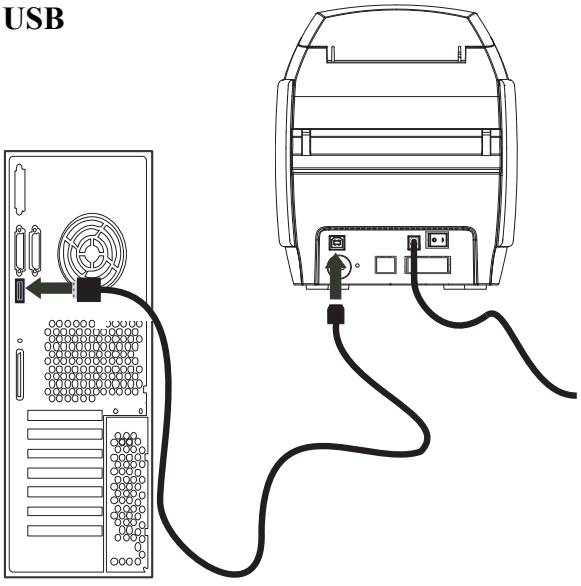
Step 2. If your printer has the optional Ethernet interface (as well as the USB interface), connect **either** the USB cable to printer and computer or the Ethernet cable to the printer and the Ethernet network.

Important • Do not connect both the USB and the Ethernet interfaces at the same time!

Ethernet



USB



Viewing Printer Information

To check the configuration parameters of the printer without being connected to a computer:

Step 1. Ensure that the printer power switch is in the OFF (O) position.

Step 2. While holding down the Control Button, place the printer power switch in the ON (|) position. The LCD Display Panel will glow blue.

Step 3. Keep pressing the Control Button and observe the LCD Display Panel show Initializing, CHECKING RIBBON, and FEEDING CARD.

Step 4. When the PRINTER INFO message appears in the display panel, momentarily release and press the Control Button to display the first parameter: Model Name.

Step 5. Continue to tap the Control Button to advance through the parameters and cycle back to the beginning:

a. Model Name (Including the printer configuration)
b. Serial Number
c. Firmware Version
d. Head Resistance
e. X & Y Offset (front)
f. X & Y Offset (back)
g. EC Offset (front and back)
h. Ribbon Type
i. Smart Offset
j. IP Address
k. Mask
l. Gateway
m. DHCP (enabled or disabled)

Step 6. A long press of the Control Button (about 1 second) will escape the sequence. Idle time of 15 seconds will also escape the sequence.

Installing the Windows Printer Driver

Initial Steps

Each computer that will use the printer must have the Printer Driver installed.

If not already done, connect power to the printer; and connect the printer to the computer.

- For USB Driver installation, turn the printer OFF (O) .
- For Ethernet Driver installation, turn the printer ON (|).

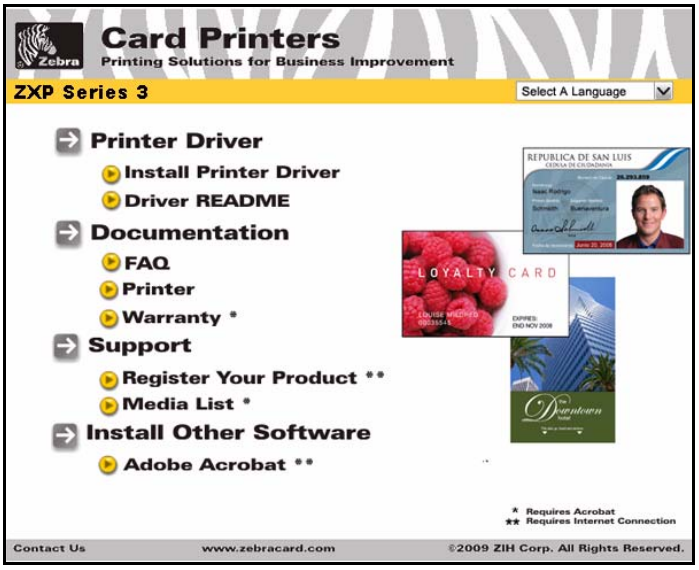
To install the Printer Driver, insert the **User Documentation and Drivers CD**, included with your printer, into the host computer and the InstallShield Wizard will walk you through the required installation steps. The InstallShield Wizard will:

- Automatically install the User Interface when the driver CD is inserted. (Autorun must be enabled for your CD).

  If Autorun is disabled:

  a. Insert the Driver CD into the CD-ROM drive.
  b. At the root (top) level of the CD, double-click on the RunCD.exe file.

- Start the installation process when the **Install Printer Driver** menu item is selected from the Main Menu.



- Install the new driver files, USB (on page 15) and/or Ethernet (on page 20).

Installing the USB Printer Driver

Note • To install the Ethernet driver, see page 20.

Step 1. If not already done, connect power to the printer. Do not turn power ON.

Step 2. Connect the USB port on the rear of the printer to the computer's USB port.

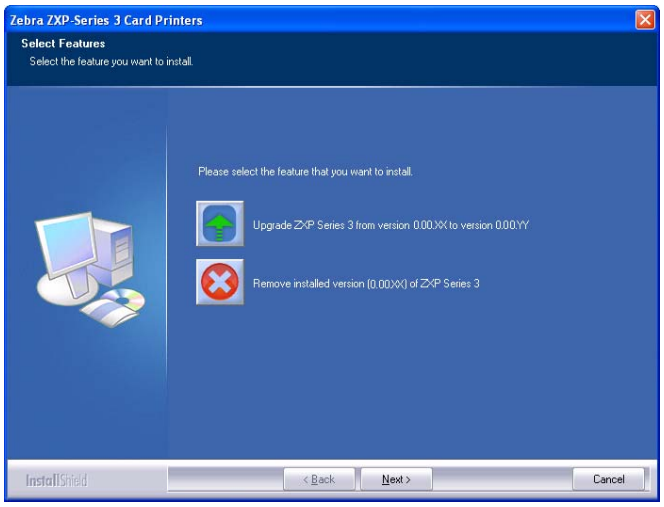
Step 3. Ensure that the Printer's power switch is in the OFF (O) position.

Step 4. Insert the **User Documentation and Drivers CD** into the CD drive of the host computer. The **Main Menu** will open.

Step 5. From the drop-down menu in the upper-right corner of the **Main Menu**, choose the appropriate language for your system.

Step 6. From the **Main Menu**, click **Install Printer Driver**.

Step 7. If an older Printer and Driver is installed on your computer, the **Select Features** window will be displayed; otherwise go to Step 9.

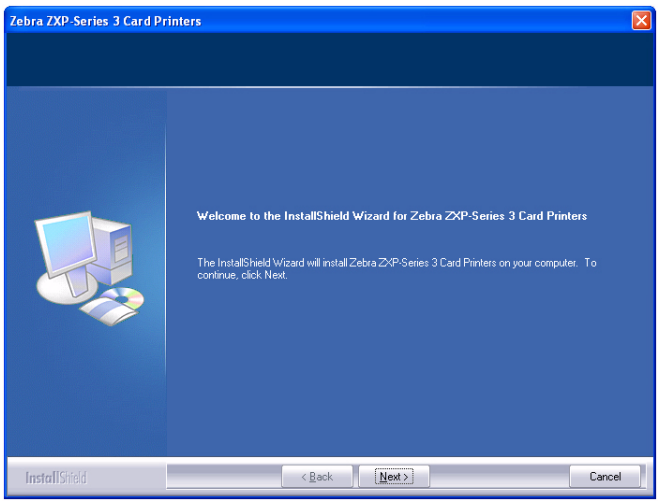

Zebra ZXP-Series 3 Card Printers
Select Features
Select the feature you want to install.
Please select the feature that you want to install.
Upgrade ZXP Series 3 from version 0.00.XX to version 0.00.YY
Remove installed version (0.00.XX) of ZXP Series 3
InstallShield
< Back
Next >
Cancel

Step 8. In the **Select Features** window, choose the maintenance operation to be performed:

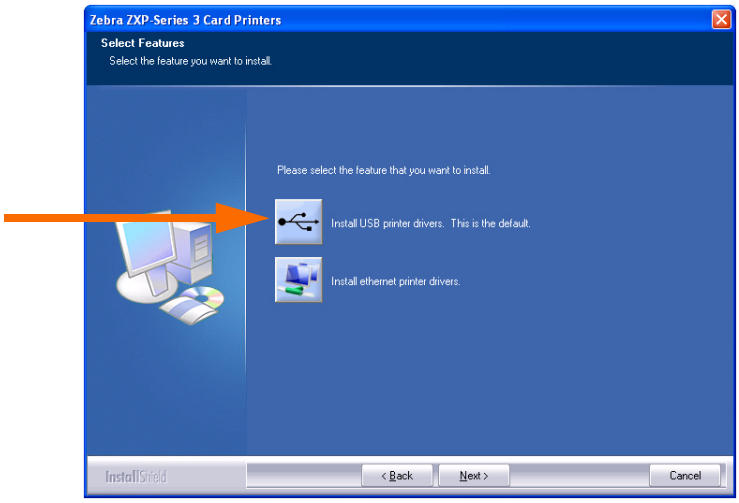
a. Select **Modify** to upgrade the older printer driver, click the **Next** button, and follow the screen prompts. At the end of the process, you will be asked to re-boot your computer. Re-boot your computer. The upgrade is complete.

b. Select **Remove** to remove the older printer driver, click the **Next** button, and follow the screen prompts. At the end of the uninstall process, you will be asked to re-boot your computer. Re-boot your computer, and start over with Step 1.

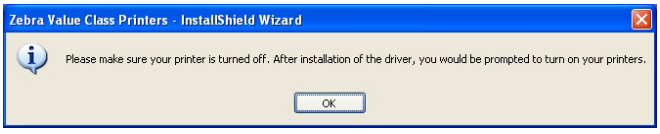
Step 9. The **InstallShield Wizard** window will open. To proceed with the installation, click the **Next** button.


Zebra ZXP Series 3 Card Printers
Welcome to the InstallShield Wizard for Zebra ZXP Series 3 Card Printers
The InstallShield Wizard will install Zebra ZXP Series 3 Card Printers on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

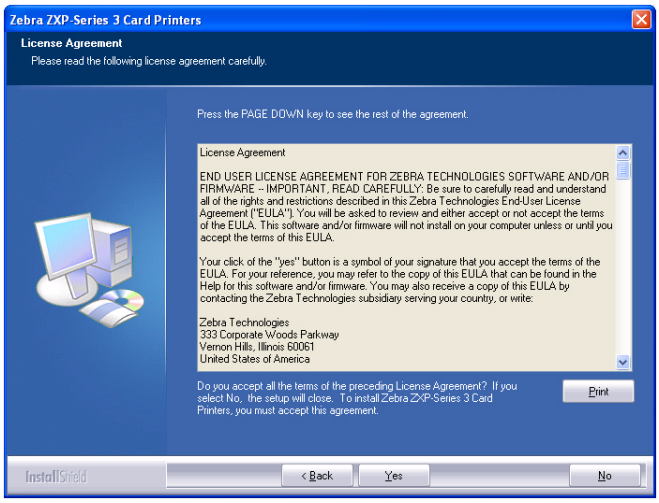
Step 10. Select **Install USB printer drivers**, and click the **Next** button.


Zebra ZXP Series 3 Card Printers
Select Features
Select the feature you want to install.
Please select the feature that you want to install.
Install USB printer drivers. This is the default.
Install ethernet printer drivers.
InstallShield
< Back
Next >
Cancel

Step 11. Ensure that the Printer's power switch in the OFF (O) position; and then click the **OK** button.


Zebra Value Class Printers - InstallShield Wizard
Please make sure your printer is turned off. After installation of the driver, you would be prompted to turn on your printers.
OK

Step 12. This will bring up the **License Agreement** window. To proceed with the installation, click the **Yes** button.

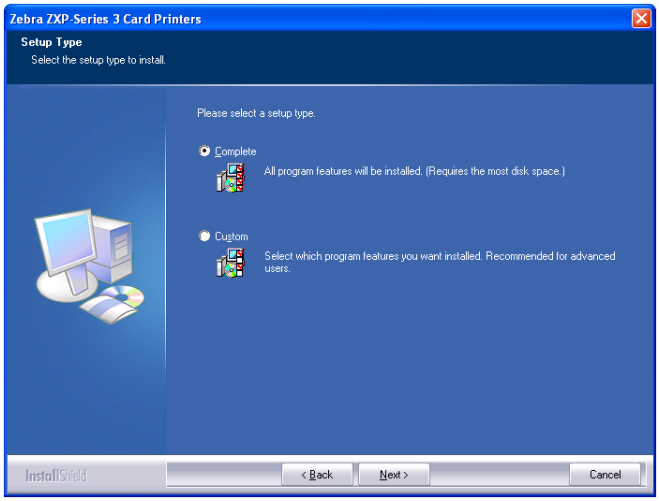

Zebra ZXP Series 3 Card Printers
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
License Agreement
END USER LICENSE AGREEMENT FOR ZEBRA TECHNOLOGIES SOFTWARE AND/OR FIRMWARE -- IMPORTANT, READ CAREFULLY: Be sure to carefully read and understand all of the rights and restrictions described in this Zebra Technologies End-User License Agreement ("EULA"). You will be asked to review and either accept or not accept the terms of the EULA. This software and/or firmware will not install on your computer unless or until you accept the terms of this EULA.
Your click of the "yes" button is a symbol of your signature that you accept the terms of the EULA. For your reference, you may refer to the copy of this EULA that can be found in the Help for this software and/or firmware. You may also receive a copy of this EULA by contacting the Zebra Technologies subsidiary serving your country, or write:
Zebra Technologies
333 Corporate Woods Parkway
Vernon Hills, Illinois 60061
United States of America
Do you accept all the terms of the preceding License Agreement? If you select No, the setup will close. To install Zebra ZXP Series 3 Card Printers, you must accept this agreement.
Print
InstallShield
< Back
Yes
No

Step 13. This will bring up the **Setup Type** window.

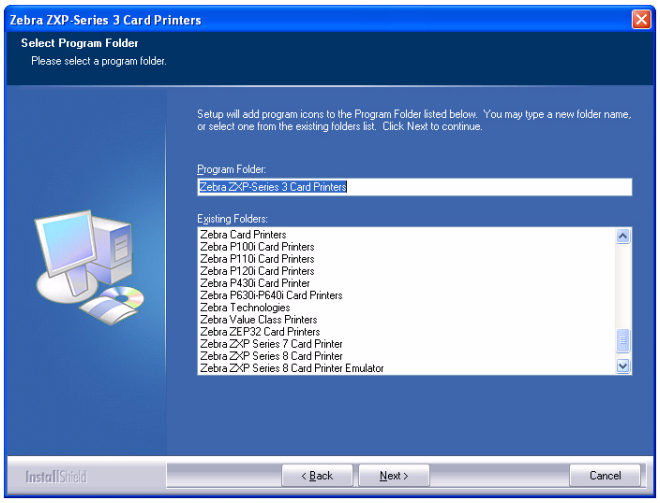
- Select *Complete* to install all program features, and click the **Next** button.

- or -

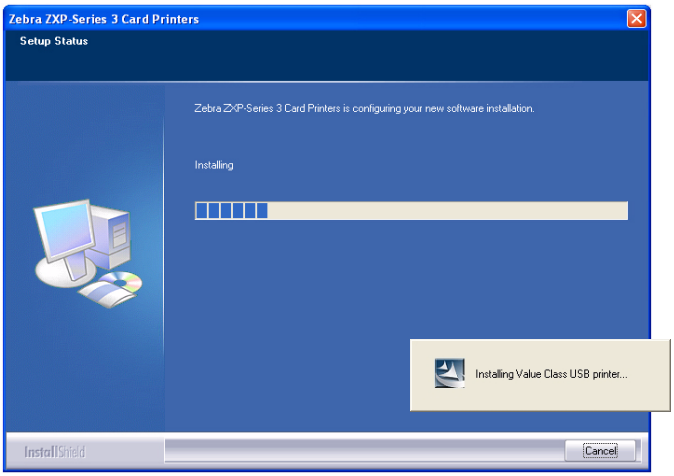
- Select *Custom* to choose which program features you want installed, and click the **Next** button.


Zebra ZXP Series 3 Card Printers
Setup Type
Select the setup type to install.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Select which program features you want installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

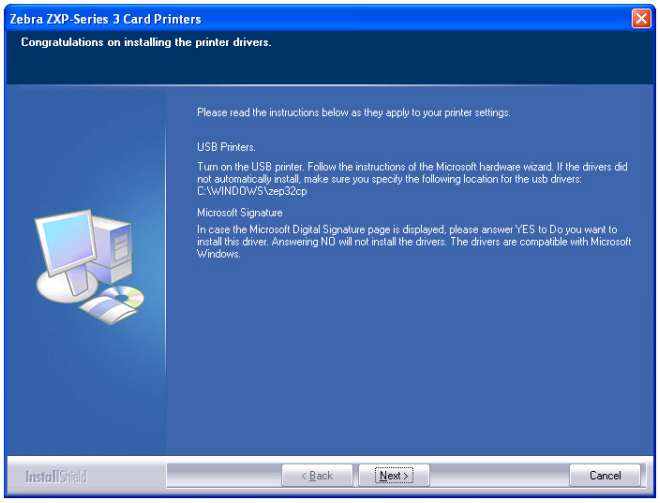
Step 14. This will bring up the **Select Program Folder** window. Type in a new folder name or select one from the existing folders list, and click the **Next** button.


Zebra ZXP Series 3 Card Printers
Select Program Folder
Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folder:
Zebra ZXP Series 3 Card Printers
Existing Folders:
Zebra Card Printers
Zebra P100i Card Printers
Zebra P110i Card Printers
Zebra P120i Card Printers
Zebra P430i Card Printer
Zebra P630i-P640i Card Printers
Zebra Technologies
Zebra Value Class Printers
Zebra ZEP32 Card Printers
Zebra ZXP Series 7 Card Printer
Zebra ZXP Series 8 Card Printer
Zebra ZXP Series 8 Card Printer Emulator
InstallShield
< Back
Next >
Cancel

Step 15. Observe the **Setup Status** window.

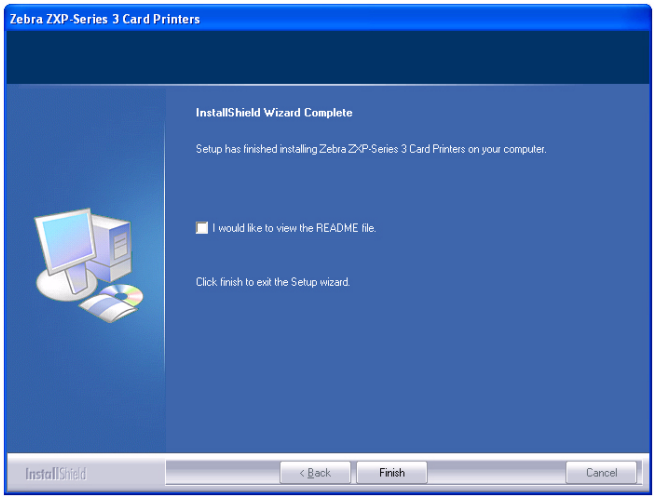

Zebra ZXP Series 3 Card Printers
Setup Status
Zebra ZXP Series 3 Card Printers is configuring your new software installation.
Installing
Installing Value Class USB printer...
InstallShield
Cancel

Step 16. The **Congratulations** window will appear.


Zebra ZXP Series 3 Card Printers
Congratulations on installing the printer drivers.
Please read the instructions below as they apply to your printer settings.
USB Printers.
Turn on the USB printer. Follow the instructions of the Microsoft hardware wizard. If the drivers did not automatically install, make sure you specify the following location for the usb drivers: C:\WINDOWS\zep32cp
Microsoft Signature
In case the Microsoft Digital Signature page is displayed, please answer YES to Do you want to install this driver. Answering NO will not install the drivers. The drivers are compatible with Microsoft Windows.
InstallShield
< Back
Next >
Cancel

Step 17. At this point, **turn on your printer**; and then click the **Next** button. The *Windows New Hardware Found* wizard will find the printer.

Step 18. When the **InstallShield Wizard Complete** window appears, click the **Finish** button.


Zebra ZXP Series 3 Card Printers
InstallShield Wizard Complete
Setup has finished installing Zebra ZXP Series 3 Card Printers on your computer.
I would like to view the README file.
Click finish to exit the Setup wizard.
InstallShield
< Back
Finish
Cancel

Step 19. This completes USB driver installation.

Step 20. To use the Printer, you would select it like you would any other printer connected to a Windows system.

Note • You may need to change the card setup (card orientation, ribbon type, etc.), encoding, overlay, and/or black panel settings via the Printer Driver; see *Card Printer Printing Preferences* on page 50.

Installing the Ethernet Printer Driver

Note • To install the USB driver, see page 15.

Important • The Ethernet Network must be configured correctly, with the Printer and the host computer on the same subnet mask. If you are not sure how to verify this or change the configuration, consult someone knowledgeable on Ethernet Networks.

Step 1. If not already done, connect power to the printer. Turn power ON.

Step 2. Connect the Ethernet port on the rear of the printer to the Ethernet network connection or directly to the computer's Ethernet port.

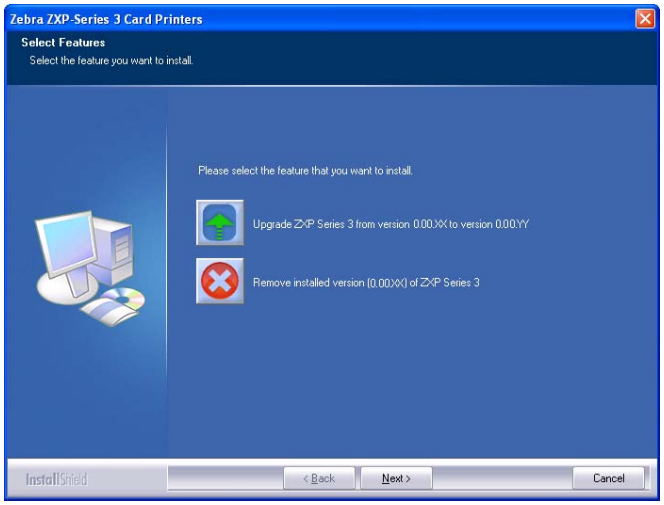
Step 3. Ensure that the Printer's power switch in the ON (|) position.

Step 4. Insert the **User Documentation and Drivers CD** into the CD drive of the host computer. The **Main Menu** will open.

Step 5. From the drop-down menu in the upper-right corner of the **Main Menu**, choose the appropriate language for your system.

Step 6. From the **Main Menu**, click **Install Printer Driver**.

Step 7. If an older Printer and Driver is installed on your computer, the **Welcome** window will be displayed; otherwise go to Step 9.

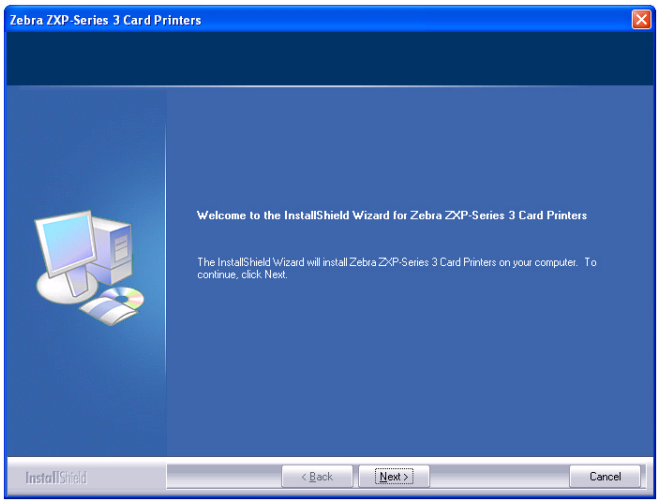

Zebra ZXP Series 3 Card Printers
Select Features
Select the feature you want to install.
Please select the feature that you want to install.
Upgrade ZXP Series 3 from version 0.00.XX to version 0.00.YY
Remove installed version (0.00.XX) of ZXP Series 3
InstallShield
< Back
Next >
Cancel

Step 8. In the **Welcome** window, choose the maintenance operation to be performed:

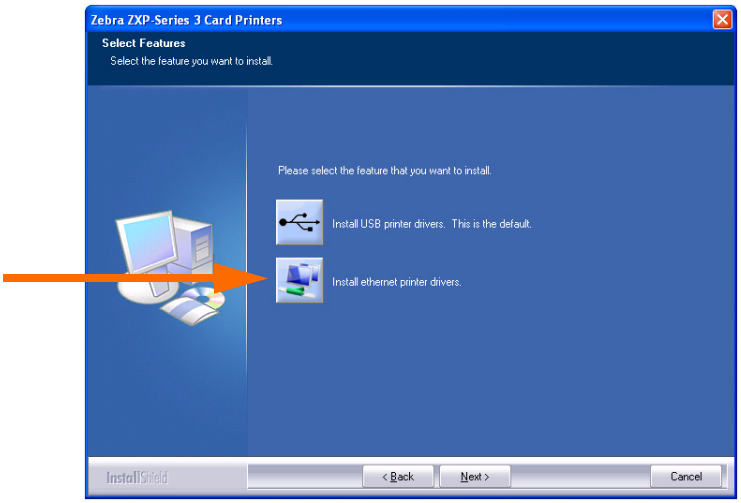
a. Select **Modify** to update the older printer driver, click the **Next** button, and follow the screen prompts. At the end of the upgrade process, you will be asked to re-boot your computer. Re-boot your computer. The upgrade is complete.

b. Select **Remove** to remove the older printer driver, click the **Next** button, and follow the screen prompts. At the end of the uninstall process, you will be asked to re-boot your computer. Re-boot your computer, and start over with Step 1.

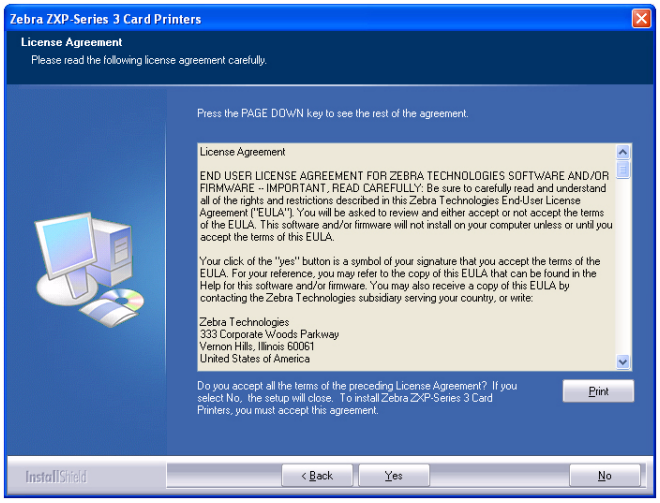
Step 9. The **InstallShield Wizard** window will open. To proceed with the installation, click the **Next** button.


Zebra ZXP-Series 3 Card Printers
Welcome to the InstallShield Wizard for Zebra ZXP-Series 3 Card Printers
The InstallShield Wizard will install Zebra ZXP-Series 3 Card Printers on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

Step 10. Select **Install Ethernet printer drivers**, and click the **Next** button.


Zebra ZXP-Series 3 Card Printers
Select Features
Select the feature you want to install.
Please select the feature that you want to install.
Install USB printer drivers. This is the default.
Install ethernet printer drivers.
InstallShield
< Back
Next >
Cancel

Step 11. This will bring up the **License Agreement** window. To proceed with the installation, select the *I accept the terms of the license agreement* option, and then click the **Next** button.

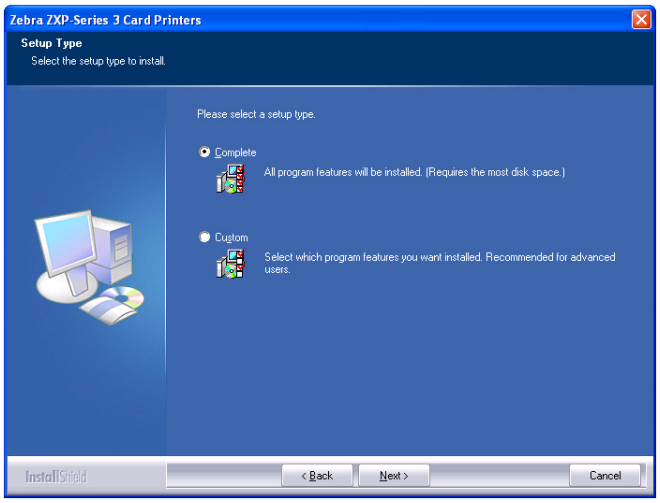

Zebra ZXP Series 3 Card Printers
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
License Agreement
END USER LICENSE AGREEMENT FOR ZEBRA TECHNOLOGIES SOFTWARE AND/OR FIRMWARE -- IMPORTANT, READ CAREFULLY: Be sure to carefully read and understand all of the rights and restrictions described in this Zebra Technologies End-User License Agreement ("EULA"). You will be asked to review and either accept or not accept the terms of the EULA. This software and/or firmware will not install on your computer unless or until you accept the terms of this EULA.
Your click of the "yes" button is a symbol of your signature that you accept the terms of the EULA. For your reference, you may refer to the copy of this EULA that can be found in the Help for this software and/or firmware. You may also receive a copy of this EULA by contacting the Zebra Technologies subsidiary serving your country, or write:
Zebra Technologies
333 Corporate Woods Parkway
Vernon Hills, Illinois 60061
United States of America
Do you accept all the terms of the preceding License Agreement? If you select No, the setup will close. To install Zebra ZXP Series 3 Card Printers, you must accept this agreement.
Print
InstallShield
< Back
Yes
No

Step 12. This will bring up the **Setup Type** window.

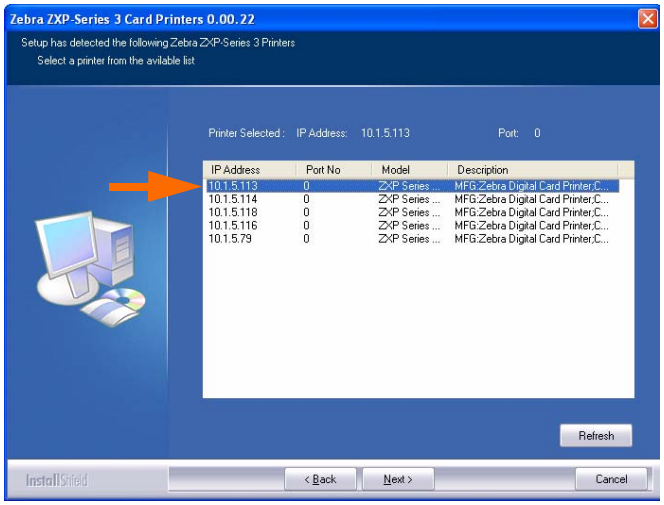
- Select *Complete* to install all program features, and click the **Next** button.

- or -

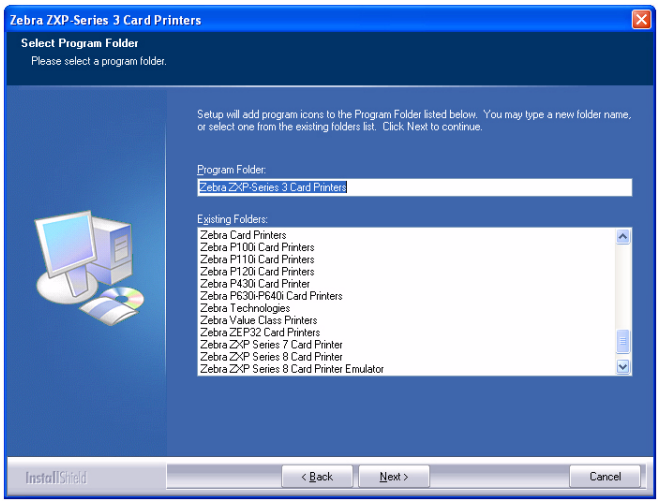
- Select *Custom* to choose which program features you want installed, and click the **Next** button.


Zebra ZXP Series 3 Card Printers
Setup Type
Select the setup type to install.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Select which program features you want installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

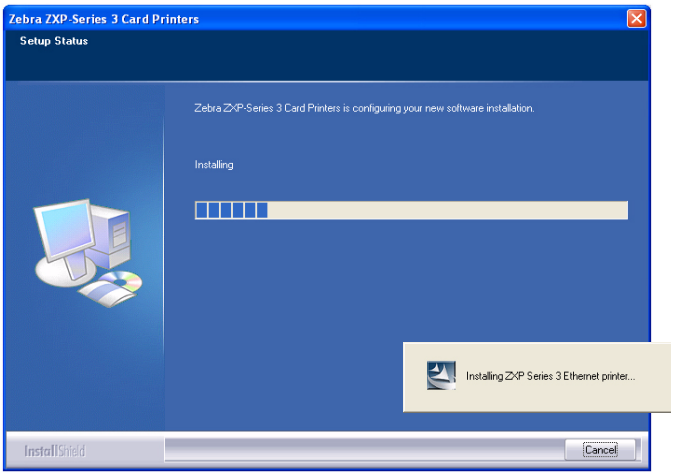
Step 13. Setup will find and list all Zebra ZXP Series 3 Printers on the network. Select a printer from the list (example, arrow below); and click the **Next** button.


Zebra ZXP-Series 3 Card Printers 0.00.22
Setup has detected the following Zebra ZXP-Series 3 Printers
Select a printer from the avilable list
Printer Selected : IP Address: 10.1.5.113 Port: 0
IP Address Port No Model Description
10.1.5.113 0 ZXP Series ... MFG:Zebra Digital Card Printer,C...
10.1.5.114 0 ZXP Series ... MFG:Zebra Digital Card Printer,C...
10.1.5.118 0 ZXP Series ... MFG:Zebra Digital Card Printer,C...
10.1.5.116 0 ZXP Series ... MFG:Zebra Digital Card Printer,C...
10.1.5.79 0 ZXP Series ... MFG:Zebra Digital Card Printer,C...
Refresh
InstallShield
< Back
Next >
Cancel

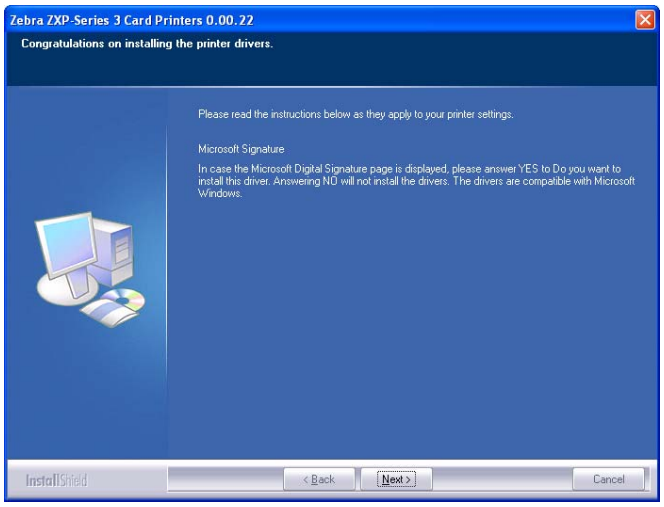
Step 14. This will bring up the **Select Program Folder** window. Type in a new folder name or select one from the existing folders list, and click the **Next** button.


Zebra ZXP-Series 3 Card Printers
Select Program Folder
Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folder:
Zebra ZXP-Series 3 Card Printers
Existing Folders:
Zebra Card Printers
Zebra P100i Card Printers
Zebra P110i Card Printers
Zebra P120i Card Printers
Zebra P430i Card Printer
Zebra P630i-P640i Card Printers
Zebra Technologies
Zebra Value Class Printers
Zebra ZEP32 Card Printers
Zebra ZXP Series 7 Card Printer
Zebra ZXP Series 8 Card Printer
Zebra ZXP Series 8 Card Printer Emulator
InstallShield
< Back
Next >
Cancel

Step 15. Observe the **Setup Status** window.

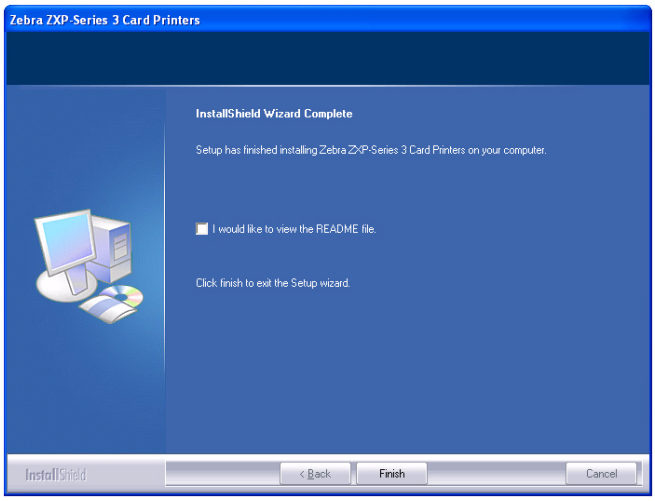


Step 16. The **Congratulations** window will appear.


Zebra ZXP-Series 3 Card Printers 0.00.22
Congratulations on installing the printer drivers.
Please read the instructions below as they apply to your printer settings.
Microsoft Signature
In case the Microsoft Digital Signature page is displayed, please answer YES to Do you want to install this driver. Answering NO will not install the drivers. The drivers are compatible with Microsoft Windows.
InstallShield
< Back
Next >
Cancel

Step 17. At this point, click the **Next** button.

Step 18. When the **InstallShield Wizard Complete** window appears, click the **Finish** button.


Zebra ZXP Series 3 Card Printers
InstallShield Wizard Complete
Setup has finished installing Zebra ZXP Series 3 Card Printers on your computer.
I would like to view the README file.
Click finish to exit the Setup wizard.
InstallShield
< Back
Finish
Cancel

Step 19. This completes Ethernet driver installation.

Step 20. To use the Printer, you would select it just like you would any other printer connected to the Ethernet.

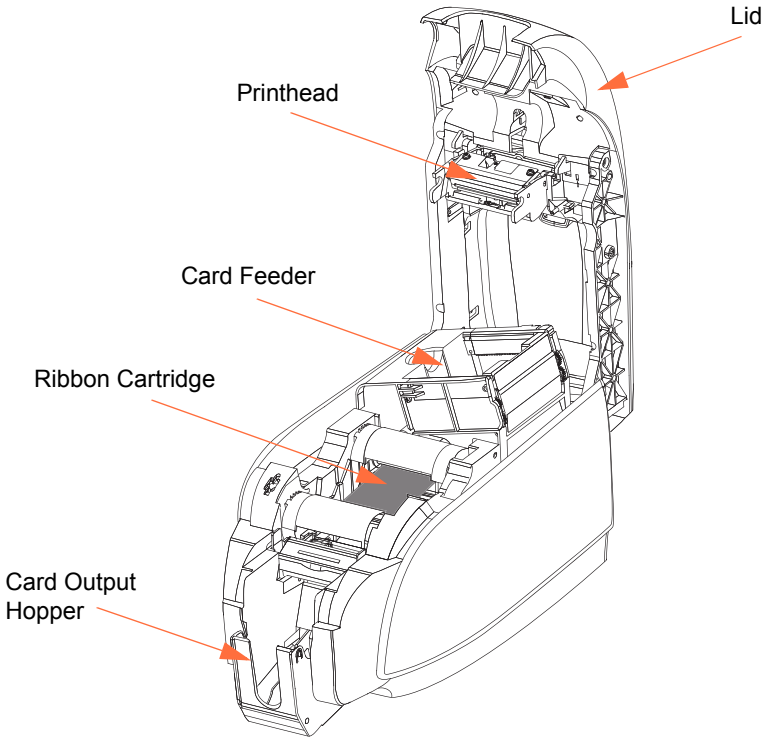
Note • You may need to change the card setup (card orientation, ribbon type, etc.), encoding, overlay, and/or black panel settings via the Printer Driver; see *Card Printer Printing Preferences* on page 50.

3

Printer Setup

Printer Features

The following shows an interior view of the ZXP Series 3 Card Printer.



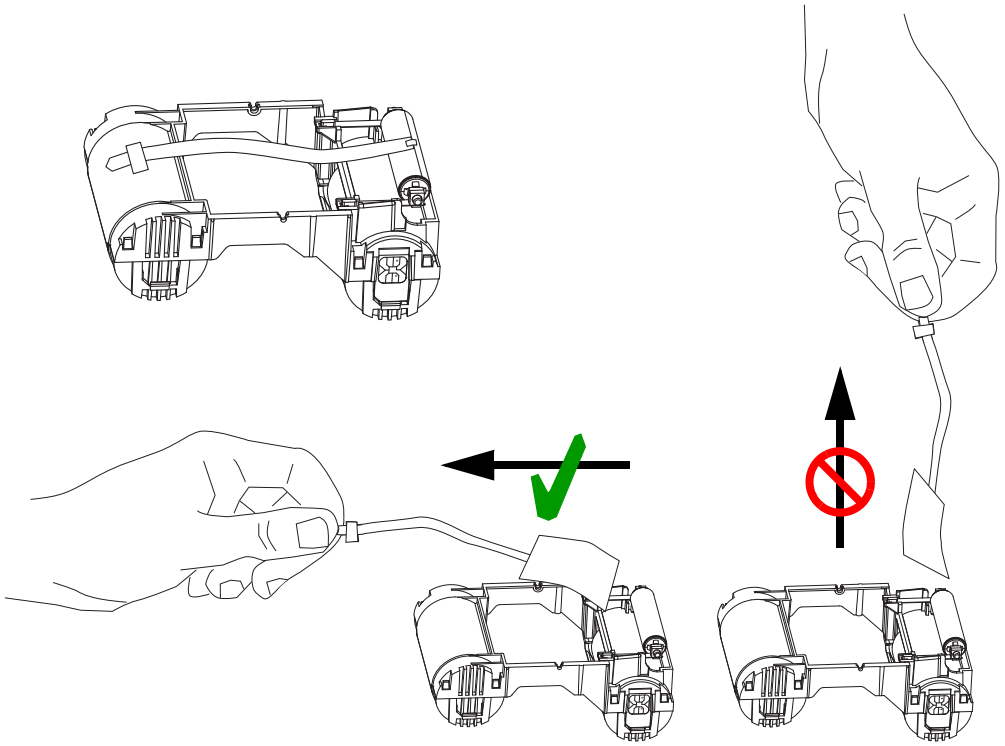
Loading Ribbon Cartridge

The Printer requires approved ribbon cartridges. The Resin Thermal Transfer and Dye Sublimation ribbons are specifically designed for your Printer.

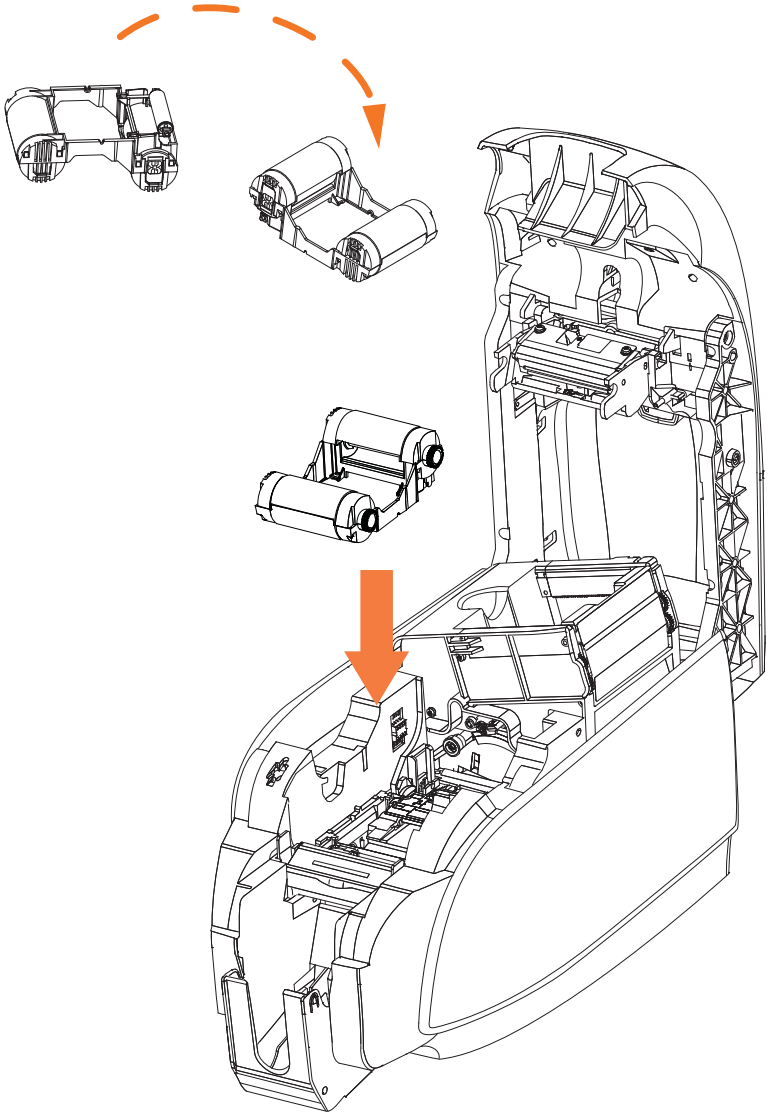
- Only use Zebra *i* Series ribbons designed to work with ZXP Series 3 Card Printers.
- Each ribbon cartridge includes an integrated adhesive cleaning roller assembly that is used to clean the cards entering the printer. Improper cleaning will reduce printer life and degrade print quality
- When the ribbon is completely used, change the whole cartridge assembly.

Electrostatic Discharge Caution • DO NOT TOUCH the printhead or the electronic components on the printhead. Discharge of electrostatic charge from the human body or other surfaces can damage the printhead or other electronic components

1. Open printer lid by pressing the Cover Release button on the top of your printer.
2. Peel protective wrapper from the adhesive cleaning roller by gently pulling on the tape. Discard the protective wrapper.



3. Insert the ribbon cartridge with the cleaning roller facing down, so the gears on the ends of the rollers fit into the appropriate slots.



4. Close the printer lid and push down until you hear an audible click.

Note • After the lid is closed, the ribbon automatically synchronizes when the printer power is on.

Loading Cards

To help you load, print, and collect cards, the printer has a card feeder and card output hopper.

Card Feeder

The card feeder is used for loading cards, it can hold up to 100 cards of 30 mils thickness. The card feeder is located under the card feeder cover of the Printer

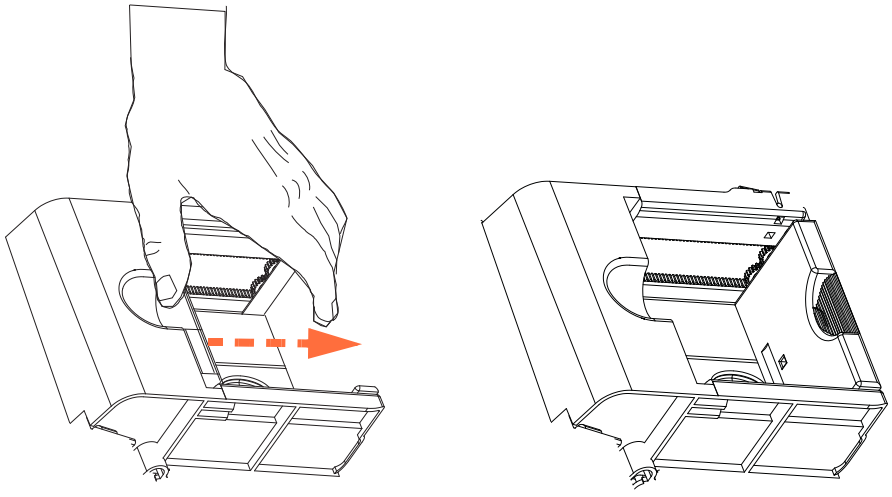
Caution • DO NOT bend cards or touch print surfaces as this can reduce print quality.

Note • The surface of the cards must remain clean and dust free. Always store cards in an enclosed container. Ideally, use cards as soon as possible. If cards stick together, carefully fan or shuffle them.

Note • For Cards with magnetic stripe, refer to Appendix B for loading instructions.

Load cards into the card feeder as follows:

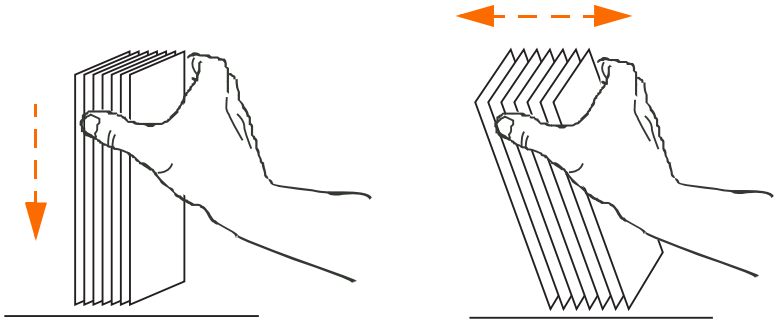
1. Open the card feeder cover.
2. Slide the card guide all the way to the right until it locks in place with an audible click.



3. Remove the cellophane wrapper from the card stack.

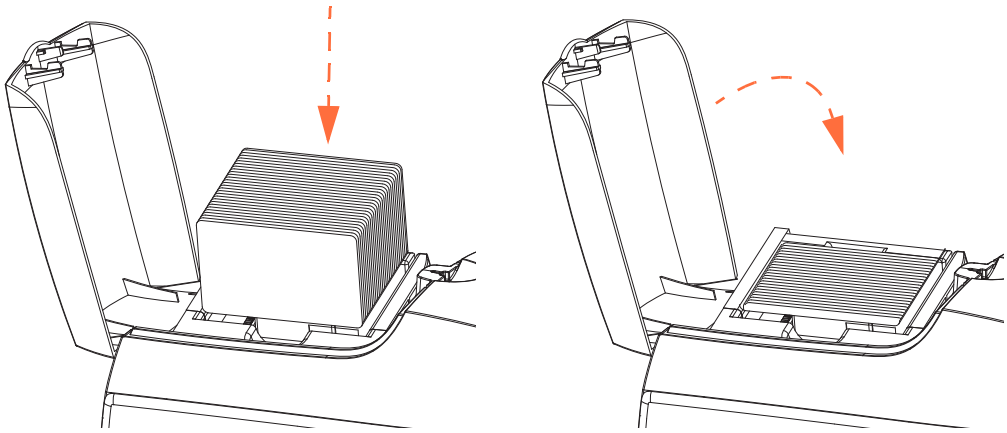
Note • Static charges and edge burrs from the card die-cutting process can render individual cards stuck together with significant adhesion force. These cards must be physically separated from each other before inserting into the feeder; if not separated, feeding or printing problems may occur.

4. Holding the card deck by the sides, hold it vertically against a flat surface such as a desktop; then push the stack back and forth to an angle of about 45° from vertical, so as to separate all of the cards.



5. Restore the card stack to its original squared-off condition.

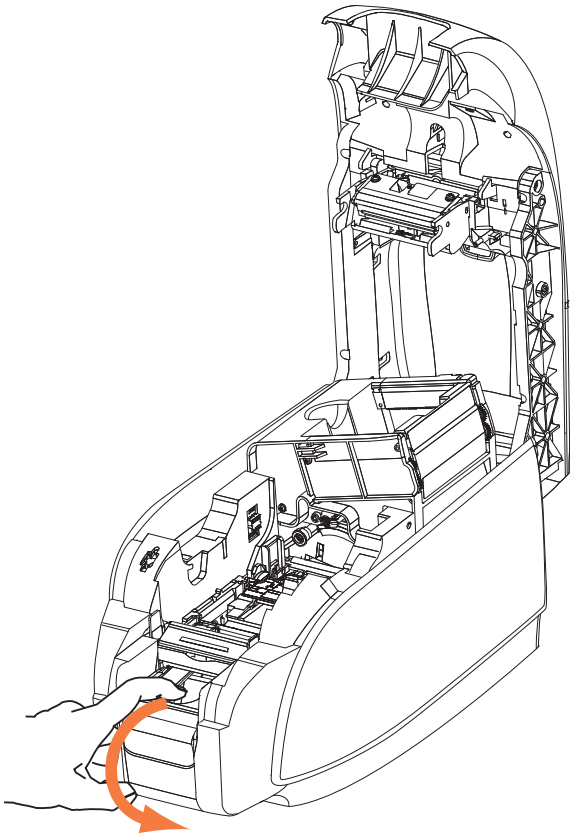
6. Place stack of up to 100 cards into the card feeder.



7. Close the card feeder cover. When card feeder cover is closed, the card guide locking mechanism will automatically be released.

Card Output Hopper

1. Raise the printer lid, and pull the output hopper down to place it in its functional position.

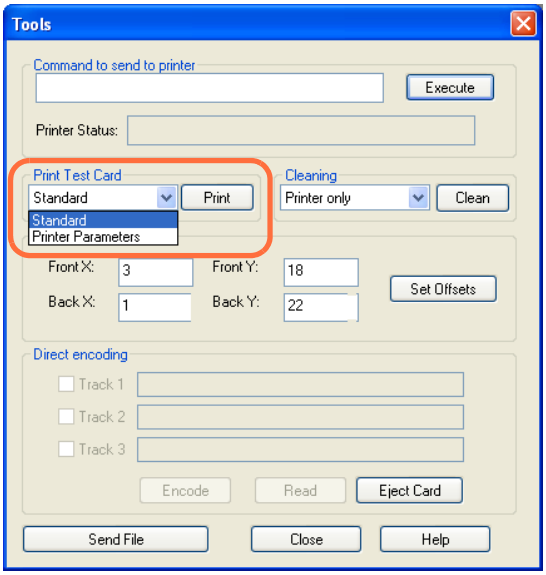


2. When not using the printer, place the card output hopper back in its closed position to protect the printer from dust.

Printing a Test Card

With ribbon cartridge and cards loaded, your printer is ready to print. To check the operation of the printer, you should print a test card.

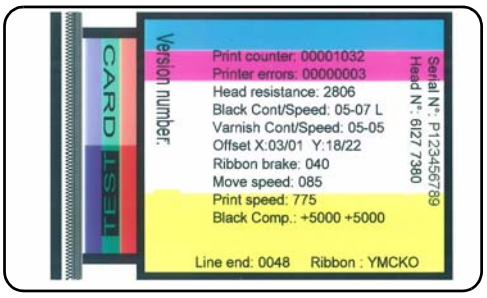
1. Go to the Driver **Tools** tab (Select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Device Settings* > *Tools*).



2. From the Print Test Card dropdown menu, select the desired test card (circled above).
3. Click on the **Print** button; see sample test cards below.

Standard:

Printer Parameters



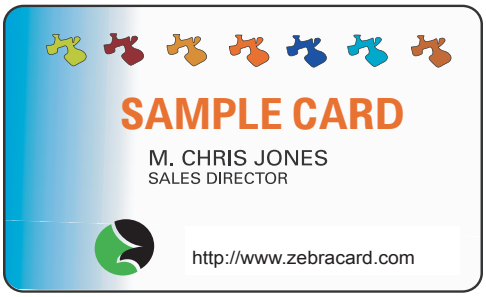
Typical Printer Operation

The ZXP Series 3 Card Printer can be used with your software application program, using the Drivers on the CD provided with your Printer; refer to Installing the Windows Printer Driver on page 14.

Creating a Sample Card

Before you begin a new printing session, print a sample card to ensure that the cards will be printed correctly. Follow the steps below to print your first card using the True Colours™ Card Printer Ribbon Cartridge.

1. Open a new Microsoft Word document.
2. If the Zebra Printer was not set as the default printer, select the ZXP Series 3 Card Printer as the default.
3. From the Microsoft Word document., set the Page Layout:
   a. Size: 3.14 in x 2.13 in (86 mm x 54 mm) Card
   b. Orientation: Portrait or Landscape
   c. Margins: Top, Bottom, Left, and Right = 0 (zero).
4. The card appears as a Microsoft Word document.
5. Design a card with both black and colored text and with colored images similar to the sample card shown below.



Printing the Sample Card

Once you complete creating your sample card, you are ready to print. Ensure your printer has a True Colours™ Card Printer Ribbon Cartridge installed and there is card stock in the card feeder. See Section 3 for instructions on installing the ribbon and loading the cards.

1. Print your sample card.
2. Once the printing is completed, remove the sample card from the card output hopper and check for any discrepancies. For quality issues, see Troubleshooting on page 61.
3. If the sample card is correct, your printer is ready to produce more cards.

4

Printer Settings and Adjustments

Introduction

This section describes the settings and adjustments that can be made to your Windows ZXP Series 3 Printer Driver. This consists of two major topics:

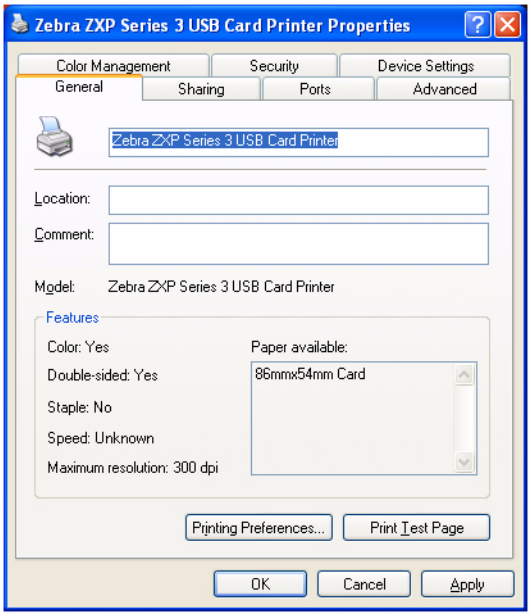
Card Printer Properties 36
- General Tab 37
- Sharing Tab. 38
- Ports Tab. 39
- Advanced Tab. 40
- Color Management Tab 41
- Security Tab 42
- Device Settings Tab 43

Card Printer Printing Preferences 50

Card Printer Properties

Note • The screen shots shown in this section are for the printer using the USB interface. If you are using the Ethernet interface, the screens will refer to the "Network Printer."

To access the Card Printer Properties, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing, then select *Properties*.

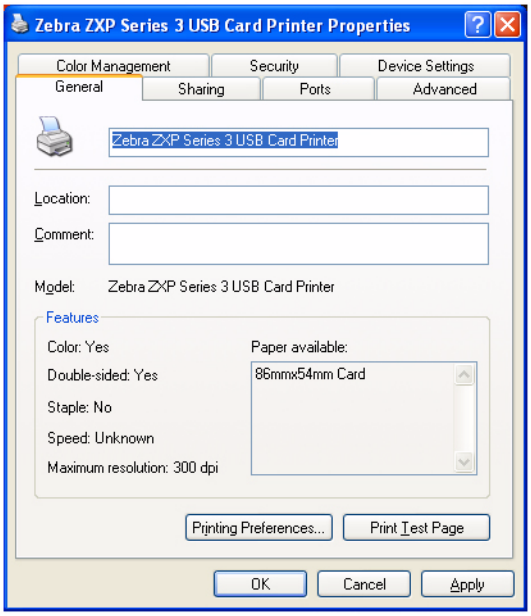


- General Tab - Displays printer information of a general nature, includes selection for Printing Preferences and Print Test Page (i.e., the standard Windows test page).
- Sharing Tab - Operating System (OS) feature where the printer can be shared with other clients on a network.
- Ports Tab - OS feature displays available communication ports.
- Advanced Tab - OS feature to select printer availability and spooling options.
- Color Management Tab - Allows user to define color profile(s) with color printers.
- Security Tab - OS feature where permissions to printers can be defined.
- Device Settings Tab - Allows user to make basic printer adjustments and access advanced printer controls.

General Tab

The General tab shows the selected printer and lists the features of the printer.

To access the General tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *General.*



- **Location -** Lets you specify where the printer is located.
- **Comment** - Lets you specify general information about the printer, such as the type of print device and who is responsible for it. Once set, these fields can be displayed by applications.
- **Model** - Specifies the name of the printer driver installed.
  - **Features** - Specifies whether various options are available on the printer.

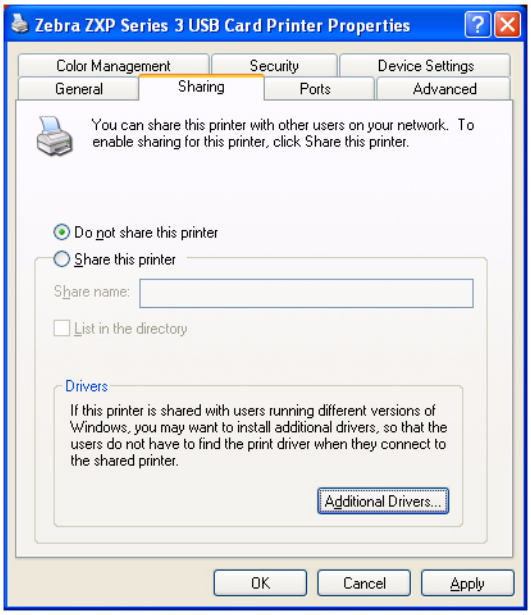
The **Printing Preferences** button **t**akes you to Printing Preferences used to set selected configuration parameters; see *Card Printer Printing Preferences* on page 50.

The **Print Test Page** button sends the standard Windows test page to the printer.

Sharing Tab

On the Sharing tab, you can choose to share the printer over the network and install additional drivers to accommodate different operating systems.

To access the Sharing tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Sharing*.


Zebra ZXP Series 3 USB Card Printer Properties
Color Management
Security
Device Settings
General
Sharing
Ports
Advanced
You can share this printer with other users on your network. To enable sharing for this printer, click Share this printer.
Do not share this printer
Share this printer
Share name:
List in the directory
Drivers
If this printer is shared with users running different versions of Windows, you may want to install additional drivers, so that the users do not have to find the print driver when they connect to the shared printer.
Additional Drivers...
OK
Cancel
Apply

Printer sharing tasks that you can perform include:

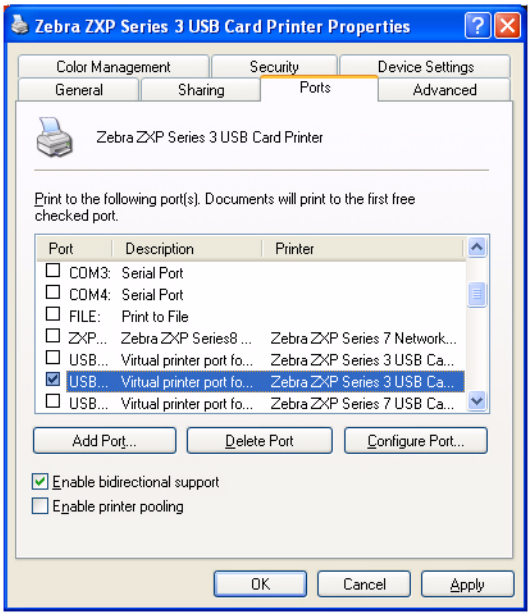
- To share a printer, select the *Share this printer* radio button; and specify a name for the shared resource. Click OK when you're finished.
- To change the shared name, simply enter a new name in the *Share name* field; and click OK.
- To quit sharing a printer, select the *Do not share this printer* radio button. Click OK when you're finished.

Drivers: If this printer is shared with users running different versions of Windows, you may want to install additional drivers, so that the users do not have to find the print driver when they connect to the shared printer. Click on the Additional Drivers button.

Ports Tab

Use the Ports tab to specify the computer port to which the printer is connected. This will have been established at the initial installation of the printer, and will not normally require attention.

To access the Ports tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Ports*.



An exception to this is if you wish to use *printer pooling*, the ability to distribute print jobs to multiple printers; see *Printer Pooling* on page 87 for details.

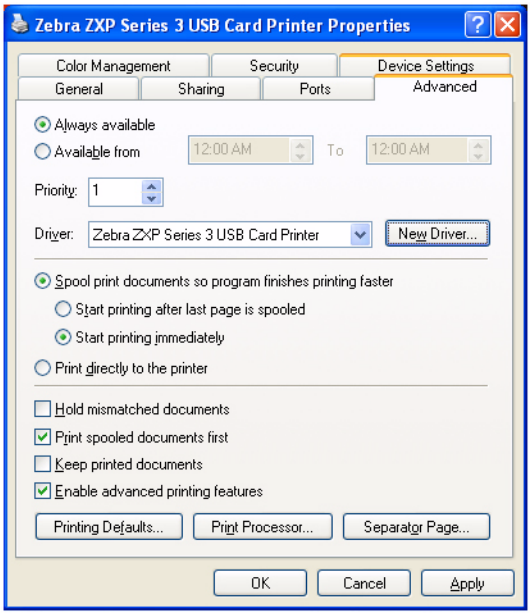
To enable printer pooling, select the *Enable printer pooling* checkbox, then check the additional ports boxes. Each port should have a single Zebra printer installed on it. All the pooled printers must be identical models with the same configuration (e.g., all with YMC front, K back); and each must have its own printer driver installed.

Now, when you print to the “main printer” (that is, whichever printer you right-clicked in Printers and Faxes to get to this screen), this printer will get print jobs until it has buffered as many jobs as it can take. The remaining jobs will then “spill over” to other printers until all printers in the pool are busy.

Advanced Tab

The Advanced tab determines the spooling (queuing) of print jobs and determines how spooled jobs are handled relative to the most recent job.

To access the Advanced tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Advanced.*



To enable spooling: Select the radio button labeled *Spool print documents so program finishes printing faster.*

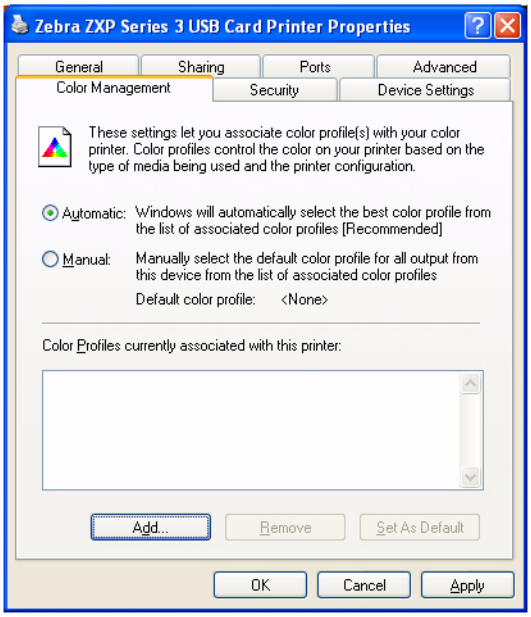
- Select *Start printing after last page is spooled* if you want the entire document to be spooled before printing begins. This option ensures that the entire document is sent to the print queue before printing. If for some reason printing is canceled or not completed, the job will not be printed.
- Select *Start printing immediately* if you want printing to begin immediately when the print device is not already in use. This option is preferable when you want print jobs to be completed faster or when you want to ensure that the application returns control to users as soon as possible.

To disable spooling: Select the radio button labeled *Print directly to the printer* radio button.

Color Management Tab

Color Management settings allow you to associate color profiles on the printer based on the type of media being used and printer configuration. The **Add** button allows the operator to add additional profiles to the color profile list.

To access the Color Management tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Color Management.*


Zebra ZXP Series 3 USB Card Printer Properties
General
Sharing
Ports
Advanced
Color Management
Security
Device Settings
These settings let you associate color profile(s) with your color printer. Color profiles control the color on your printer based on the type of media being used and the printer configuration.
Automatic: Windows will automatically select the best color profile from the list of associated color profiles [Recommended]
Manual: Manually select the default color profile for all output from this device from the list of associated color profiles
Default color profile: <None>
Color Profiles currently associated with this printer:
Add...
Remove
Set As Default
OK
Cancel
Apply

The following settings let you associate color profiles with your printer:

- The **Automatic** radio button lets Windows select the best color profile from the list of associated profiles (default).
- The **Manual** radio button lets you select the appropriate profile from the list shown in the Color Profile window.

You can manage Color Profiles currently associated with your printer as follows:

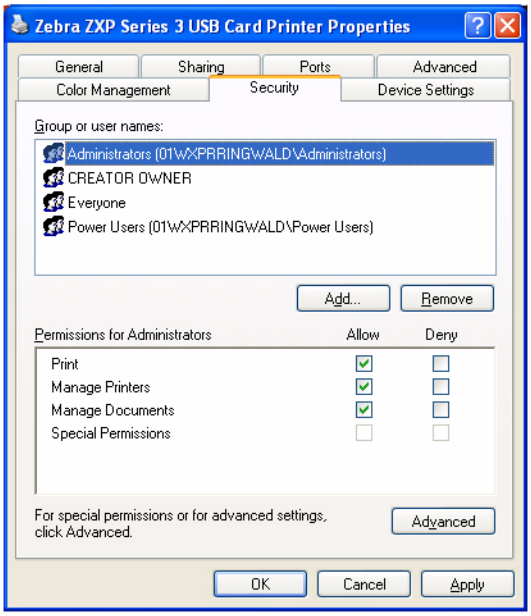
- The **Add** button allows you to add additional profiles to the color profile list.
- The **Remove** button allows you to remove profiles from the color profile list.

The **Set As Default** button allows you to set the selected profile as the default profile.

Security Tab

This is the standard Windows security screen, showing user access to various printer control options. Both Print and Manage Printers *must* be checked for full functionality of the printer.

To access the Security tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Security.*



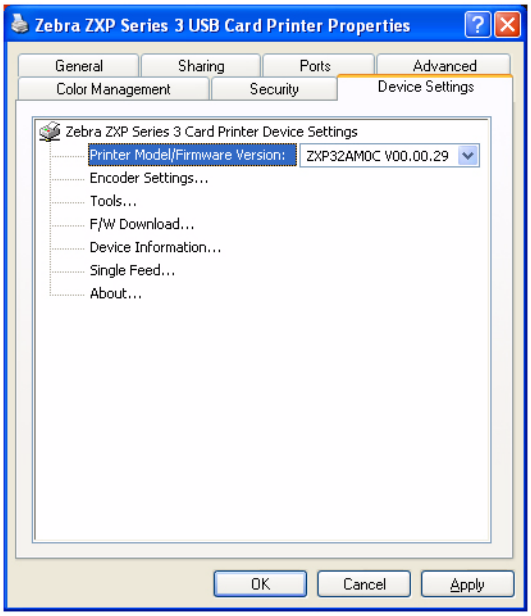
The Security tab allows you to assign the actual permissions that apply to the print queue. You can apply permissions to both users and to groups. It is usually considered a better practice to only apply security to groups.

The Advanced Security Settings properties sheet allows you to assign a more comprehensive set of permissions than the basic Security tab found on the printer's properties sheet does.

Device Settings Tab

The Device Settings tab provides device information, security status, and printer usage.

To access the Device Settings tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing. Select *Properties* > *Device Settings*.

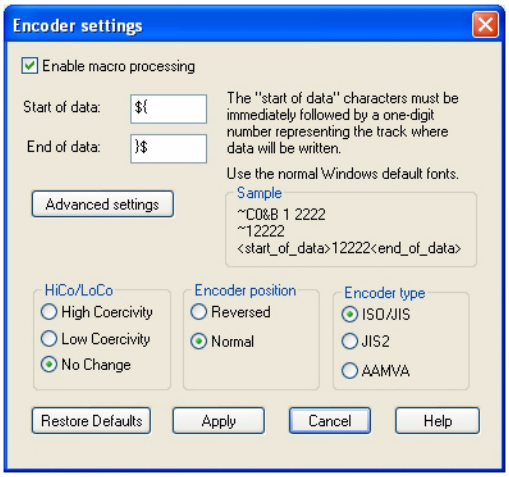


Printer Model/Firmware Version

Gives the printer model and firmware version.

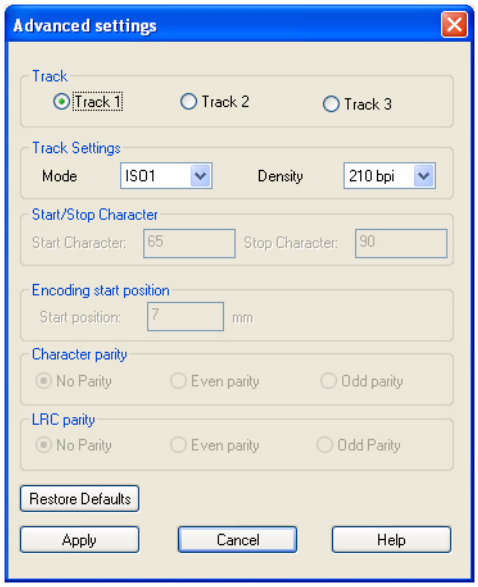
Encoder Settings

Dialog box for setting Magnetic Encoder parameters. This feature is not enabled if the printer does not have the magnetic encoder option.



- **Enable macro processing** - This option will allow the user to choose the encoding preamble.
- **Start of Data** - Beginning of the data string for the encoder. Note that Start of Data characters must be immediately followed by a one-digit number representing desired track where the data will be written. Use the normal Windows default fonts.
- **End of Data** - Ending of the data string for the encoder.
- **Advanced Settings** - Click here for more information. (see *ADVANCED SETTINGS DIALOGUE BOX* on page 45).
- **Restore Defaults** - Click here to reset the encoder settings to the default values.
- **HiCo/LoCo** - Select the type of coercivity of magnetic stripe cards to be used. Coercivity is a measurement of a material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material.
- **Encoder Position** - Select the printer encoder position between Reversed and Normal. Reversed is not supported by this printer.
- **Encoder Type** - Select the type of encoder. JIS2 and AAMVA are not supported by this printer.

ADVANCED SETTINGS DIALOGUE BOX

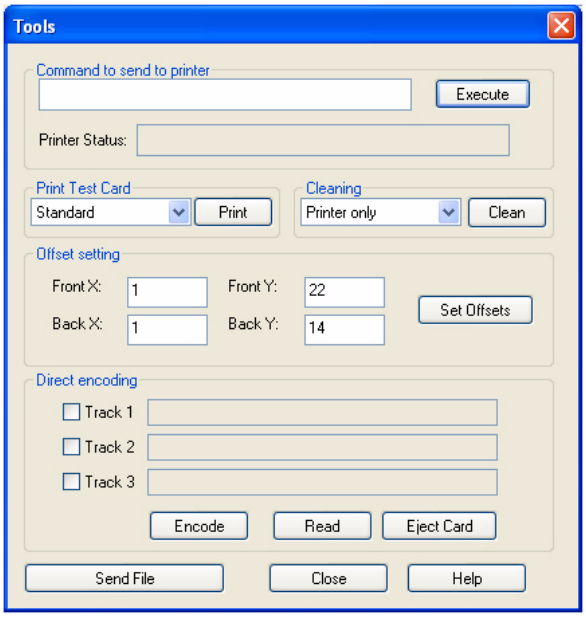


- **Track**: Select the track you want to configure.
- **Track Settings**: Select the Mode (ISO1, ISO2, ISO3, 3 bit, 4 bit, 5 bit, 6 bit, or 7 bit) and Density (75bpi or 210 bpi) for the tracks.
- **Start/Stop Character** (For Non-ISO encoding only): Enter an ASCII value for the Start and Stop characters.
- **Encoding Start Position** (For Non-ISO encoding only): Enter the encoding start position in millimeters (mm).
- **Character Parity** (For Non-ISO encoding only): Choose the Character Parity you want to work with -- No parity, Even parity, or Odd parity.
- **LRC Parity** (For Non-ISO encoding only): Choose the LRC Parity you want to work with -- No parity, Even parity, or Odd parity.

Click the **Restore Defaults** button to reset the settings to the original values.

Tools

Dialog box for testing and communicating with the printer.



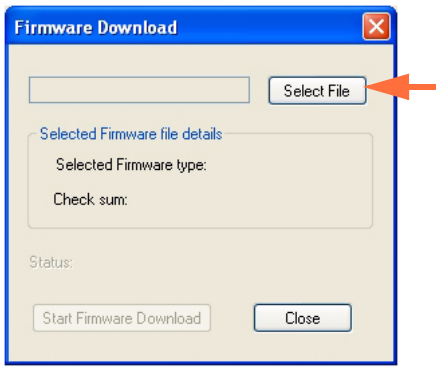
- **Command to send to printer** - Enter a printer command (without leading escape character) in the top edit box, and click on the **Execute** button to send to the printer directly. The *Printer Status* will show the status of the printer. Contact Zebra Technical Support for a complete list of the printer commands.
- **Print Test Card** - Three test card types are available: Standard, Printer Parameters, and Encoder Parameters. Click on the **Print** button to print the test card.
- **Clean** - *Printer only* is the only cleaning option. Click on the **Clean** button to clean the printer. Remove all consumables before executing a cleaning cycle.
- **Offset Setting** - Enter the Front and Back X and Y direction offsets, and click on the **Set Offsets** button to set the offsets for printing the card.
- **Direct Encoding** - To encode magnetic data on a track, select the track (Track 1, Track 2, or Track 3); enter the data to encode; and click on the **Encode** button. To read magnetic data, select the track(s) to be read; and click on the **Read** button. To eject the card from the printer, click on the **Eject Card** button.
- **Send File** - This command will allow a .prn or .txt file to print.
  - The .prn file must be created with a Zebra printer driver using the same ribbon as present in the printer.
  - The .txt file must contain firmware commands only with only one command per line. The first line must only contain *MASTER*; the last line must only contain *SLAVE*.

F/W Download

This Dialog box is used to install the firmware downloaded from the Zebra web site at http://zebracard.com under *Drivers & Downloads*.

Important • Do not turn off the power to the printer until the process is done and the LCD displays *READY*. If the download process is interrupted, the printer will not operate.

Step 1. Click on the **Select File** button (arrow below).

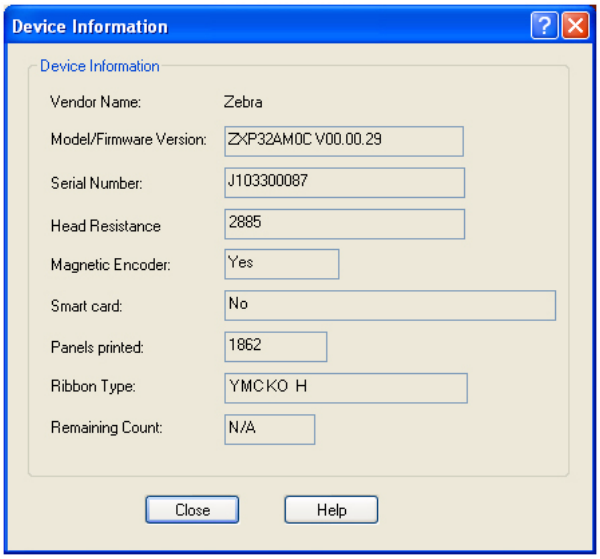


Step 2. From the Browse window, "find" the downloaded firmware (BIN file type), and click on the **Open** button.

Step 3. Click on the **Start Firmware Download** button (arrow below) to install the firmware; otherwise, click on the **Close** button to abandon the firmware installation.

Device Information

Printer configuration status window.



- **Model/Firmware Version** - Specifies the printer model number and installed firmware version.
- **Serial Number** - Specifies the printer serial number.
- **Head Resistance** - Specifies the printhead resistance value.
- **Magnetic Encoder** - Specifies if this option is present.
- **Smart Card** - Specifies if a smart card encoder is present and type of encoder.
- **Ribbon Type** - Specifies the ribbon installed in the printer.
- **Remaining Count** - Shows the remaining card count for the ribbon installed. For monochrome ribbons, this will display *Unknown*.
- **Panels Printed** - Shows the total number of panels printed for the lifetime of the printer.

Single Feed Options

Note • For operating the ZXP Series 3 Card Printer in single card feed mode, the printer requires that the operator install an optional CardSense Single Card Feed Kit; refer to Appendix D for details.

Click on the appropriate radio button to Enable / Disable Single Feed operation.

About

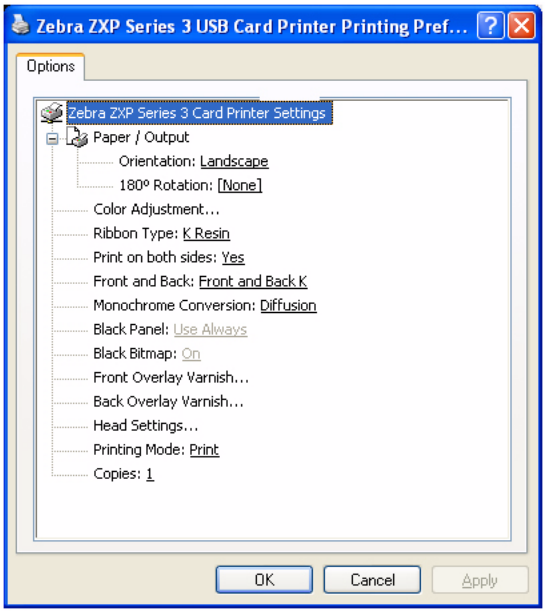
Dialog Box for specifying the Printer Model, the Driver Version, and the Copyright.

Once the printer driver options have been configured to your satisfaction, click the **OK** button to save your new configuration and close the Properties window.

Card Printer Printing Preferences

Note • The screen shots shown in this section are for the printer using the USB interface. If you are using the Ethernet interface, the screens will refer to the "Network Printer."

To access the Card Printer Properties, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing, then select *Properties.*

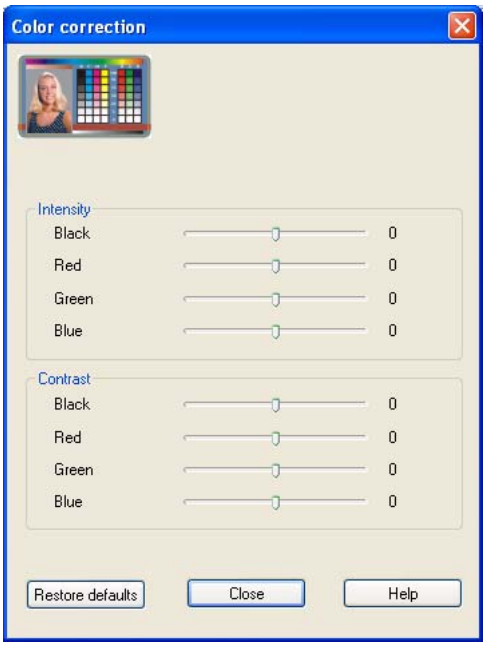


- **Paper / Output** - Sets the layout of card.
  - Orientation - *Landscape* or *Portrait* printing layout.
  - Rotation - Rotate the image 180°. Options are *None, Front, Back*, and *Front Back*.

- **Color Adjustment** - Adjusts color output (Intensity and Contrast).

Note • Printed colors can appear different than displayed colors; the following controls allow you to optimize the printed results.

Allows you to adjust the image colors; these adjustments apply to the entire card, not just photographic image.

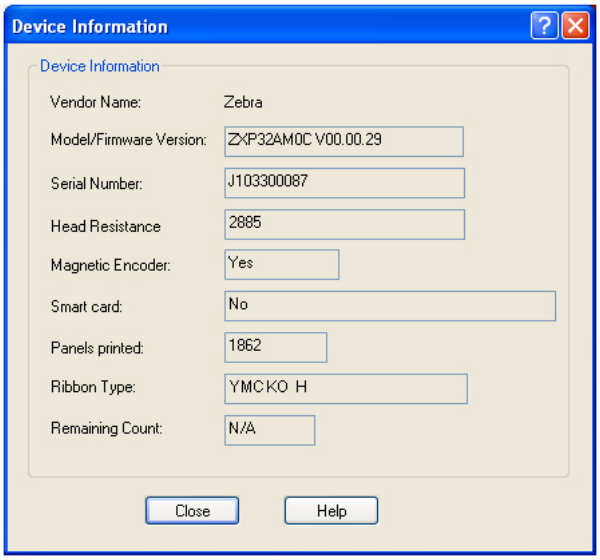


- **Intensity** - increase or decrease the image intensity by moving the Black, Red, Green, and Blue slider bars left or right. This will change the overall lightness or darkness of the image. Move the slider to the right (0 to 100) to increase the intensity and to the left (0 to -100) to decrease the intensity. Note that color ribbon wrinkling can be eliminated by reducing the *intensity.*
- **Contrast** - increase or decrease the image contrast by moving the Black, Red, Green, and Blue slider bars left or right. This magnifies or minimizes the difference between the light and dark parts of the image. Move the sliders to the right (0 to 100) to increase the contrast and to the left (0 to -100) to decrease the contrast.

Use the **Restore Defaults** button to reset the settings to the driver defaults.

Ribbon Type - Displays type of ribbon installed in printer.

Click on the **Printer/Ribbon Details** button to see the Device Information window:



- **Print on both sides** - Selection for single-sided or dual-sided printing.
- **Front and Back** - Feature selection for dual sided printing.

  Choices are based on ribbon type; for example:

  YMCKOK
  - YMCKO on Front, K on Back
  - YMCKO on Front, YMCKO on Back

  YMCKO
  - YMCKO on Front, YMCKO on Back
  - YMCO on Front, K on Back

- **Monochrome Conversion** - Specifies the method of monochrome conversion used in printing. Different selections have different effects on the way the image is printed.

  The options are:
  - Diffusion
  - Halftone Regular
  - Barcode

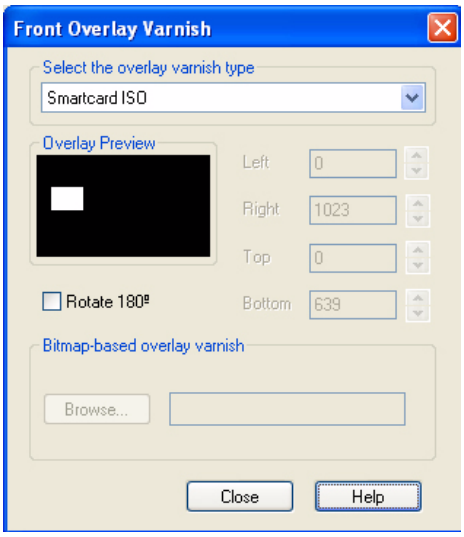
- **Black Panel** - Defines how black panel is applied in a card design.

  4 selections:

  - Do Not Use - K panel not used
  - Use Always - all black pixels will go to K panel
  - Text Only - only black text goes to K panel
  - Except in Color Picture - all black pixels except bitmap goes to K panel

- **Black Bitmap** - Applies black bitmap option, On or Off.
- **Front Overlay Varnish** - Feature selection for applying overlay varnish ribbon to front of card. Default setting is full edge-to-edge varnish.

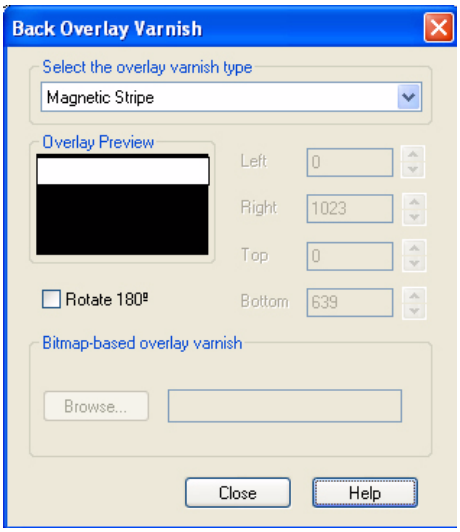
  There are various varnish options. A preview pane is shown for each selection.



  - Full overlay varnish - Applies an edge-to-edge overlay.
  - No overlay - Does not apply any overlay.
  - Selected area overlay varnish - Applies an overlay only in the area selected by user.
  - Selected area blank - Applies an overlay only outside the area selected by user.
  - Bitmap-based overlay varnish - Applies a user-defined bitmap in the overlay panel.
  - Smartcard ISO - Does not apply an overlay in the area of the ISO standard smart card contacts; see figure above.
  - Smartcard AFNOR - Does not apply an overlay in the area of the AFNOR standard smart card contacts.
  - Magnetic Stripe - Does not apply an overlay in the area of the ISO standard magnetic stripe.

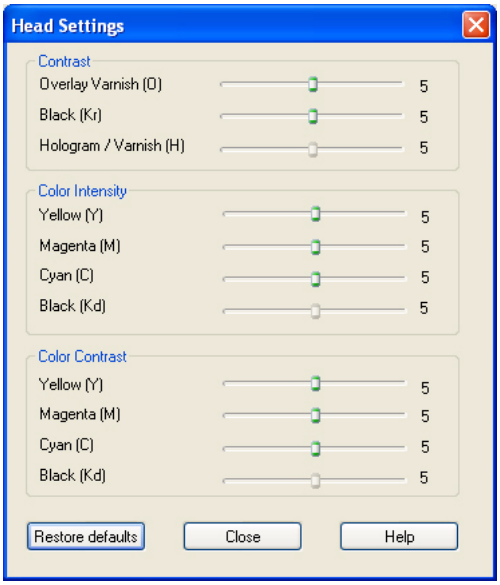
- **Back Overlay Varnish** - Feature selection for applying an overlay varnish ribbon to the back of a card. Default setting is full edge-to-edge varnish.

  There are various varnish options. A preview pane is shown for each selection.



  - Full overlay varnish - Applies an edge-to-edge overlay.
  - No overlay - Does not apply any overlay.
  - Selected area overlay varnish - Applies an overlay only in the area selected by user.
  - Selected area blank - Applies an overlay only outside the area selected by user.
  - Bitmap-based overlay varnish - Applies a user-defined bitmap in the overlay panel.
  - Smartcard ISO - Does not apply an overlay in the area of the ISO standard smart card contacts.
  - Smartcard AFNOR - Does not apply an overlay in the area of the AFNOR standard smart card contacts.
  - Magnetic Stripe - Does not apply an overlay in the area of the ISO standard magnetic stripe.

- **Head Settings** - Setting for heat adjustments on the print head. Adjustments can be made to the Contrast and Intensity.



  Head settings can be changed to adjust the monochrome contrast, color intensity, and color contrast. Changes made to head settings will change color quality of printed images. These adjustments directly affect the heating levels used by the printer, for each of the individual panels on a print ribbon.

  - Contrast - adjusts the black and overlay contrast from 0 to 10.
  - Color Intensity - adjusts the intensity of each color from 0 to 10.
  - Color Contrast - adjusts the contrast of each color from 0 to 10.

  Click on the **Restore defaults** button to reset the settings to the factory default values.

- **Printing Mode** - Feature selection for type of printing required:
  - Print
  - Encode Only (use this when magnetic encoding is the only function desired, printing will not occur).
  - Print and Encode on same side

- **Copies** - Sets the number of copies of cards printed.

5 Cleaning

Cleaning the System

Caution • PROTECT YOUR FACTORY WARRANTY!
The recommended maintenance procedures must be performed to maintain your factory warranty. Other than the recommended cleaning procedures described in this manual, allow only Zebra authorized technicians to service the ZXP Series 3 Card Printer.

NEVER loosen, tighten, adjust, or bend, etc., a part or cable inside the printer.

NEVER use a high-pressure air compressor to remove particles in the printer.

Your Printer includes a simple cleaning system using Pre-Saturated Cleaning Cards provided. The regular use of these cards will clean and maintain important parts of your printer that cannot be reached: including Printhead, the Transport Rollers, and the Magnetic Encoder Station (optional feature).

When to Clean

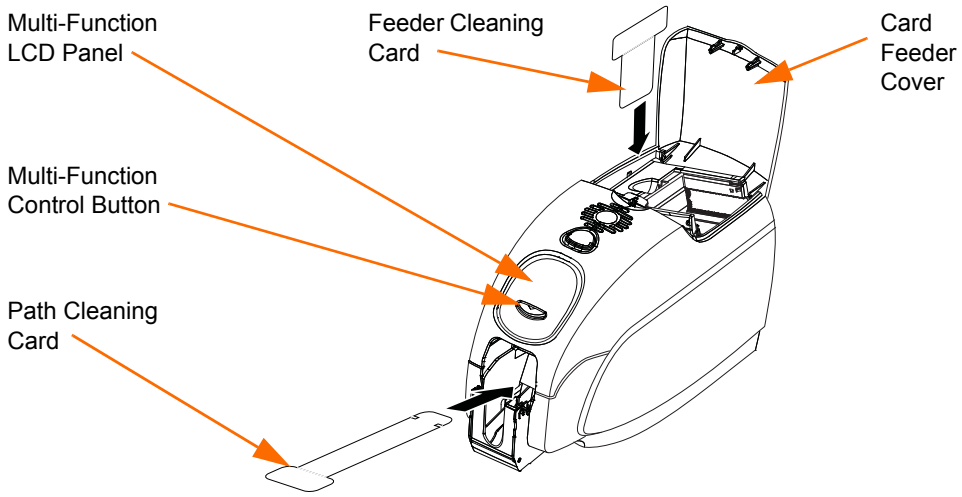
Clean the Printer when:

- Print quality has been degraded.
- The LCD panel displays the message **CLEAN PRINTER**.

How to Clean

Step 1. Place the printer power switch in the ON (|) position, and then press and hold the Multi-Function Control Button for 5 seconds.

Step 2. When the cleaning cycle is initiated, the LCD message **REMOVE RIBBON THEN CLOSE LID** will display.



Step 3. After the ribbon is removed and the lid is closed, the message **EMPTY FEEDER THEN CLOSE COVER** will display.

Step 4. If the lid is opened and closed without removing the ribbon, the **REMOVE RIBBON THEN CLOSE LID** message will remain.

Step 5. Once the ribbon is removed and the cover is closed, the firmware will eject any card inside the printer. The message **EJECTING CARD** will display.

Step 6. The LCD will display **FEED LONG CLEANING CARD**. When the presence of the cleaning card is sensed, the rollers will take the card into the printer.

Step 7. When the cleaning process is done, the printer will eject the cleaning card. If the card sensor still senses the cleaning card, the message **REMOVE LONG CLEANING CARD** will display.

Step 8. Once the long cleaning card is no longer sensed by the card exit sensor, the message I**NSERT FEEDER CLEANING CARD** will display. Open the feeder cover, and insert the feeder cleaning card.

Step 9. When the feeder cleaning card has been sensed by the feeder card sensor, the message **CLOSE FEEDER COVER** will display.

Step 10. When feeder cleaning is complete, the message **REMOVE FEEDER CLEANING CARD** will display.

Step 11. After the card is removed, the LCD will display **READY**. You may now reload the ribbon and cards and continue printing.

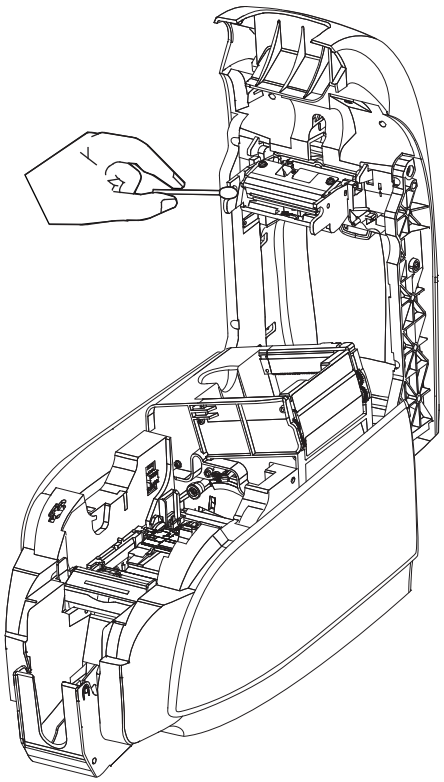
Cleaning the Printhead

Use of the cleaning cards will normally do an adequate job of cleaning the printer. However, a separate Printhead cleaning, using swabs, can remove more stubborn deposits when print anomalies persist. To avoid deposits, only use foam-tipped swabs.

Caution • Never use a sharp object to scrape deposits from the printhead. Permanent damage to the printhead will result

Step 1. Place the printer power switch in the OFF (O) position.

Step 2. Open the printer lid by pressing the cover release button, and open the cover fully to reveal the Printhead mounted on the inside of the cover.



Step 3. Clean the Printhead by moving an alcohol-moistened swab tip side-to-side across the Printhead elements. Only use moderate force.

Step 4. Allow two to three minutes for the printhead to dry before placing the printer power switch in the ON (|) position.

Step 5. To reorder swabs, refer to the Media List on the *Windows Drivers and User Documentation CD* supplied with this printer.

6

Troubleshooting

Introduction

The objective of troubleshooting is to relate a problem to an associated assembly or system function, in order to most efficiently isolate and repair the problem. Typically, this involves determining the failure symptom and then checking one or more possible causes of the failure.

In general, for a given failure symptom one or more possible causes are listed, with suggested corrective action to take. These causes should be checked and corrective actions taken in the order given; they are listed in order of likelihood and complexity.

Troubleshooting Procedures

LCD Panel Warnings and Error Messages

The following tables show causes and solutions to symptoms related to improper operation. Check the table when experiencing any loss of operation or print quality.

PANEL WARNINGS (printer will still operate)

Problem / Symptom	Description or Cause	Possible Solution[Note]
CHECKING RIBBON	Printer is determining type of ribbon installed.	No action required -- status message only.
CLEAN PRINTER	Printer cleaning required.	Refer to *Cleaning the System* on page 57.
CLOSE LID	The lid is open.	Make sure that the lid is completely and securely closed.
ENCODING ERROR	May be incorrect card type.	Check that you are using the correct magnetic card type (for low or high coercivity encoding).
FLASH ERROR	A flash error occurred.	Reset the Printer, and try printing the card again.
INVALID MAGNETIC DATA	The magnetic data may be invalid.	Check data format.
READING ERROR	A reading error occurred.	Reset the Printer, and try printing the card again.

Note: If the problem persists, contact Technical Support; see *Worldwide Support* on page 109.

ERROR MESSAGES (printer will not operate)

Problem / Symptom	Description or Cause	Possible Solution[Note]
CHECK RIBBON	Wrong type of ribbon may be installed. Ribbon for P1XX will not work. Ribbon may be improperly installed.	Install proper ribbon. Reload ribbon cartridge. Refer to *Loading Ribbon Cartridge* on page 28.
COMMAND ERROR	A command error occurred.	Reset the Printer, and try printing the card again.
COVER OPEN	The cover is open.	Make sure that the cover is completely and securely closed.
LID OPEN	The lid is open.	Make sure that the lid is completely and securely closed.
MECHANICAL ERROR	Check that you are using the correct card type. Check for card jam. Check that ribbon is loaded correctly.	See *Technical Specifications* on page 71. Open cover and remove Card Cleaning Cartridge, empty the Card Feeder, and remove the jammed cards. Refer to *Loading Ribbon Cartridge* on page 28 for details.
OUT OF CARDS	Check for cards in the card feeder.	If no cards present, load cards; then press the Panel Button for 1 second. The printing job will restart.
OUT OF RIBBON	Check ribbon. May be defective or entirely used.	Load a new ribbon cartridge. Refer to *Loading Ribbon Cartridge* on page 28 for details.
PARAMETERS ERROR	A parameter error occurred.	Reset the Printer, and try printing the card again.

Note: If the problem persists, contact Technical Support; see *Worldwide Support* on page 109.

Print Quality Issues

This section will help you resolve print quality problems.

The print quality is dependent on several factors. The two most important factors that will increase your print quality are cleanliness and card stock.

To diagnose and fix print quality problems, follow the troubleshooting procedures below:

Small spots - 65

Non-printing horizontal lines (white) - - - - - - - - - - - - - - 66

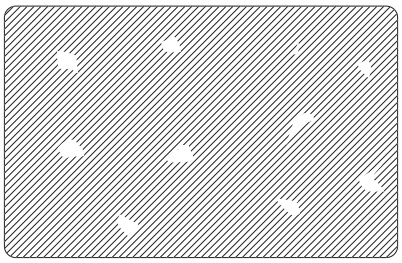
Pale or inconsistent results - - - - - - - - - - - - - - - - - - 67

Blurry printed image - 68

No printing - 69

Example • Small spots

Small spots appear on the printed card with a non-printed area or a different color.



Possible Cause:

- Contamination on the card surface.

Solutions:

- Check that cards are stored in a dust free environment.
- Use a different supply of cards.

Possible Cause:

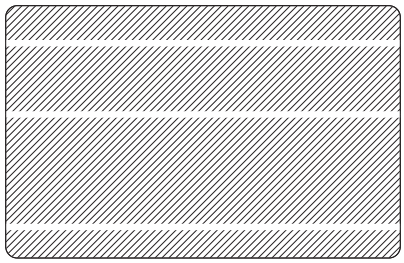
- Dust inside the printer and/or dirty Cleaning Roller.

Solutions:

- Clean the printer. Refer to *Cleaning the System* on page 57.
- Check that the protective cover was removed from the ribbon cartridge cleaning roller. Refer to *Loading Ribbon Cartridge* on page 28.

Example • Non-printing horizontal lines (white)

There are non-printing horizontal lines (white) on the card surfaces.



Possible Cause:

- Ribbon cartridge is not correctly positioned.

Solutions:

- Ensure that the ribbon is properly rolled onto the ribbon cores of the cartridge and that there are no wrinkles in the ribbon.
- Replace ribbon cartridge. Refer to *Loading Ribbon Cartridge* on page 28.

Possible Cause:

- Printhead is dirty.

Solutions:

- Clean the Printhead. Refer to *Cleaning the Printhead* on page 59.

Possible Cause:

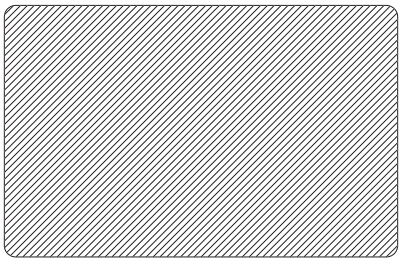
- Printhead elements are damaged (e.g., scratched or burnt).

Solutions:

- Call Zebra Customer Service for Printhead replacement information; see *Worldwide Support* on page 109.

Example • Pale or inconsistent results

Printing shows very pale or inconsistent results.



Possible Cause:

- Ribbon cartridge have been stored improperly or is damaged.

Solution:

- Change ribbon cartridge, and print again. Refer to *Loading Ribbon Cartridge* on page 28.

Possible Cause:

- Cards may not meet specifications. Refer to *Technical Specifications* on page 71.

Solution:

- Use a different supply of cards.

Possible Cause:

- Dust or embedded contamination on elements of the Printhead.

Solution:

- Clean the Printhead. Refer to *Cleaning the Printhead* on page 59.

Possible Cause:

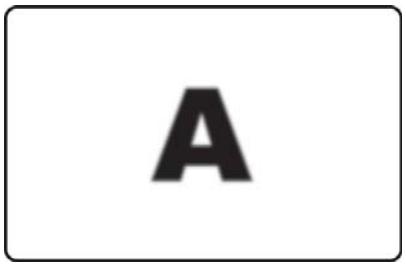
- Printing on wrong side of writable back cards.

Solution:

- Reverse direction of cards in feeder.

Example • Blurry printed image

Printing shows blurry printed image.



Possible Cause:

- Ribbon cartridge may not be correctly positioned.

Solution:

- Check that the ribbon is properly rolled onto the ribbon cores of the cartridge, with no wrinkles.
- Replace ribbon cartridge, making sure it locks in place, and print again. Refer to *Loading Ribbon Cartridge* on page 28.

Possible Cause:

- Ribbon may not be synchronized on the correct color panel position.

Solution:

- Open lid, then close lid to synchronize ribbon.

Possible Cause:

- Cards may not meet specifications. Refer to *Technical Specifications* on page 71.

Solution:

- Use a different supply of cards.

Possible Cause:

- Dust or embedded contamination inside the printer.

Solution:

- Clean the Rollers and the Printhead. Refer to *Cleaning the System* on page 57 and *Cleaning the Printhead* on page 59 respectively.

Example • No printing

No printing on the card.

Possible Cause:

- Ribbon cartridge may not be installed in the printer.

Solution:

- Check for ribbon cartridge in the printer. Refer to *Loading Ribbon Cartridge* on page 28.

Possible Cause:

- Cards may not meet specifications. Refer to *Technical Specifications* on page 71.

Solution:

- Use a different supply of cards.

Possible Cause:

- Cable on Printhead may be disconnected.
- Printhead elements may be scratched or burnt.

Solution:

- Call Service for Printhead repair or replacement information; see *Worldwide Support* on page 109.

7 Technical Specifications

Printer Specifications

General

- Single-sided and dual-sided printing
- Single card feed capable
- Load-N-Go drop-in ribbon cartridge
- 16-character LCD display
- Windows© Drivers: XP, Server 2003 and 2008, Vista, and Windows 7 (32/64 bits)
- 100-card covered feeder (30 mil card)
- 50-card output hopper (30 mil card)
- 32 MB memory standard

Communications Interfaces

- Standard: USB 2.0 (cable included)
- Optional: Built-in 10/100 Mbps Ethernet

Printing Specifications

- Color dye sublimation or monochrome thermal transfer printing
- 300 dpi (11.8 dots/mm) print resolution
- Single-Sided (Front only)
  - 750 card per hour monochrome
  - 180 cards per hour card full-color (YMCKO)
- Dual- Sided (Front and Back)
  - 140 cards per hour (YMCKO Front, K back)

Ribbon Specifications

- i Series™ intelligent media technology
- YMCKO: 200 cards/roll
- YMCKOK: 165 cards/roll
- Monochrome: 1000 cards/roll - black, blue, green, gold, red, or silver
  850 cards/roll - white
- ½ Panel YMC Full KO: 250 cards/roll
- KdO: 500 cards/roll
- KrO: 500 cards/roll

Cards Compatibility

- Types: PVC, PVC Composite
- Card width/length: ISO CR-80-ISO 7810: 2.125" by 3.375" (54 mm by 86 mm)
- Card thickness: .015" to .040"; for optimum performance, use standard .030" cards
- Magnetic Stripe - ISO 7811
- Smart Card Contact - ISO 7816-1,2,3,4
- Smart Card Contactless MIFARE - ISO 14443A/B

Encoding Options

- Magnetic encoder (30 mil cards only), 3 track HiCo/LoCo: ISO 7811
- Combined PC/SC MIFARE - ISO 14443 (13.56 MHz) and ISO 7816 contact encoder
- Smart Card Contact Station ISO 7816

Optional Features

- CardSense™ single-card feed mode
- Extended product warranty programs

Bar Code

- Code 39, Code 128 B & C with and without check digit
- 2 of 5 and 2 of 5 Interleaved
- UPC-A, EAN 8, and EAN 13
- PDF-417 2D bar code and other symbologies can be printed via Windows drivers

Security

- Kensington security slot
- Optional: Lockable covers on feeder, and print engine compartment

Electrical

- Power Supply
  Input: 100 ~ 240 Volts AC, 50 ~ 60 Hz (auto switching)
  Output: 24V/4A
- FCC Class A

Dimensions (printer only)

- Height: 9.3 in (235.5 mm)
- Width: 7.9 in (200.7 mm)
- Depth: 14.5 in (367.6 mm)
- Weight: 12.2 lbs (5.53 kg)

Environmental

- Operating Temperature: 60°F to 86°F (15°C to 30°C)
- Operating Relative Humidity: 20% to 65% non-condensing
- Storage Temperature: 23°F to 158°F (-5°C to 70°C)
- Storage Relative Humidity: 20% to 70% non-condensing

Agency Approvals

Zebra ZXP Series 3 Card Printer complies with following applicable directives and standards for the ITE: Residential, Commercial & Light Industry environments

- For US/Canada/Mexico/Australia&NZ
  - FCC Class A, cfr47, Part 15 Subpart J
  - FCC 15.257 2008, Part 15 Subpart C
  - Canadian STD RSS-210
  - NOM-ETL (Mexico)
  - EN60950: 2000 Safety Standard (TUV & RTL)
  - C-Tick (Australia) Electromagnetic Radiation Standard

- For uEope:
  - Applicable Directives and Supporting Standards:

    2004/108/EC EMC Directive, EN55022:2006 + AD:2007 Class A,
    EN55024:1998 + AD1:2001 + AD2:2003,
    EN61000-3-2:2006, EN61000-3-3:2008,
    2006/95/EC LVD Directive, EN60950-1:2006 + A11, CB Scheme

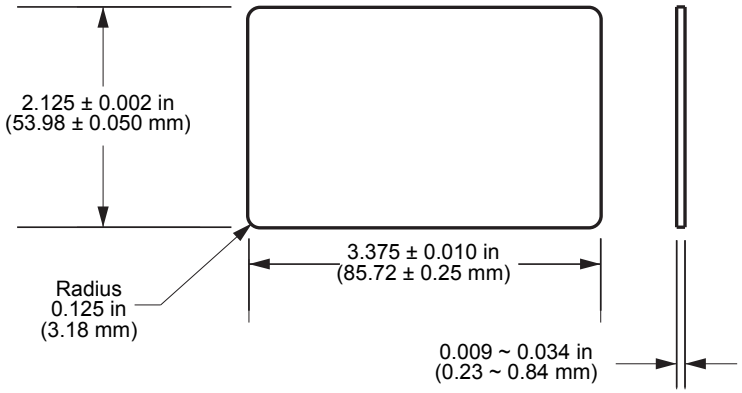
  - RFID Enabled

    Applicable Directives and Supporting Standards:

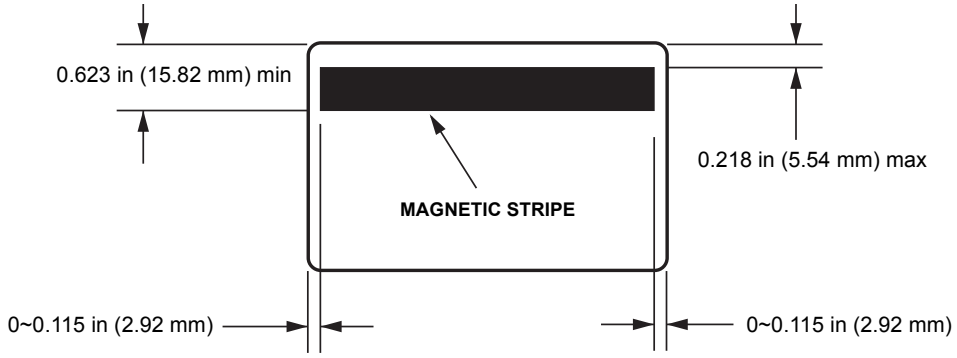
    99/5/EC R&TTE Directive, EN 301 489-3 V1.4.1,
    EN 300 330 V1.5.1

ISO Standard Card Dimensions

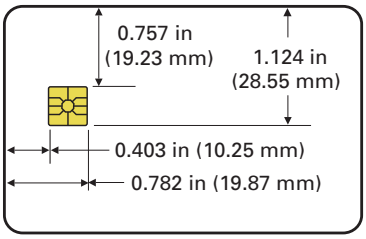
Dimensions for Plain Card ISO Standard 7810



Dimensions for Magnetic Stripe Card ISO Standard 7811



Contact Location for Smart Card ISO Standard 7816



Declarations of Conformity

CE

89/336/EEC modified by 92/31/EEC and 93/68/EEC	EMC Directive	EN 55022 (1998)	RF Emissions control
	EMC Directive	EN 301489-3 V1.4.1	RF Emissions and Immunity for radio equipment
	EMC Directive	EN55024 (2001)	Immunity to Electro-Magnetic Disturbances
73/23/EEC modified by 93/68/EEC	Low voltage Directive	EN 60950-1 (2001)	Product safety
1999/5/CE	R&TTE Directive	EN300330-2 V1.1.1	Radio Frequency Interferences

For a formal certificate, please contact the Compliance Office at Zebra's Camarillo facility.

EUROPE: Norway Only: This product is also designed for IT power system with phase-to-phase voltage 230V. Earth grounding is via the polarized, 3-wire power cord.

FI: "Laite on liitettävä suojamaadoitus koskettimilla varustettuun pistorasiaan"

SE: "Apparaten skall anslutas till jordat uttag"

NO: "Apparatet må tilkoples jordet stikkontakt"

FCC Regulations

The ZXP Series 3 has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and operated in accordance with the User's Manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Pursuant to Part 15.21 of the FCC Rules, any changes or modifications to this equipment not expressly approved by Zebra may cause harmful interference and void the FCC authorization to operate this equipment.

FCC Radiation Exposure Statement (applicable to 15.247 device only)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum 20 cm between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.

Industry Canada Notice

This device complies with Industry Canada ICES-003 class A requirements.
Cet équipement est conforme à l 'ICES-003 classe A de la Norme Industrielle Canadienne.

Japanese Notification

" この装置は総務省の型式指定を受けています。"
(総務省指定番号は第**AC-**ｘｘｘｘｘ号です)
本製品は電波を使用した**RFID** 機器の読み取り・書き込み装置です。
そのため使用する用途・場所によっては、医療機器に影響を与える恐れがあります。

NCC Warning Message

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Appendix A

Network Operations

Introduction

This section covers:

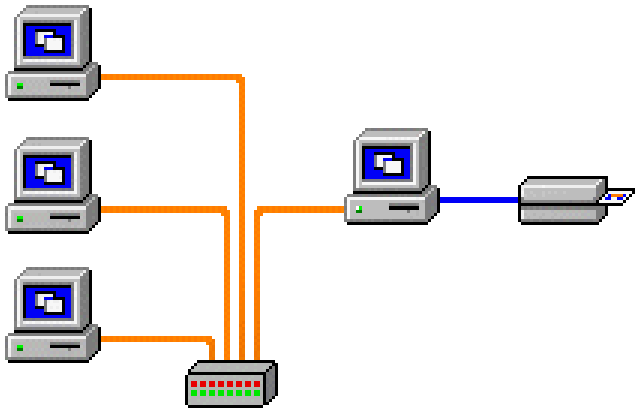
Network Configurations 78
Setting Up a Network Printer 80
Printer Pooling 87

Network Configurations

Printer Sharing

In printer sharing, the printer is connected locally to the host computer and configured to be shared to other client computers.

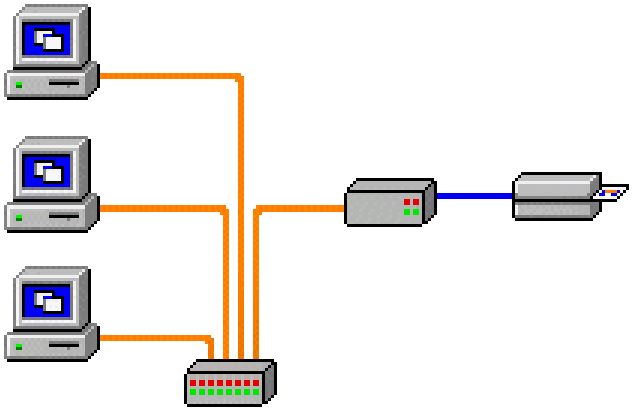
Client computers connect to the printer over the network through the host computer.



External Print Server

An external print server is a stand-alone device that acts as a server on the network specifically for receiving print jobs and passing them to the printer.

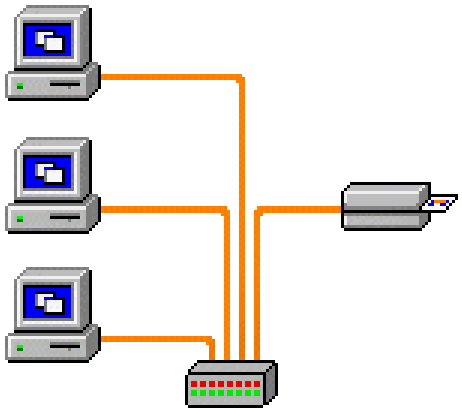
Client computers connect to the print server over a network.



Internal Print Server

An internal print server is similar to an external print server, except the print server is integrated into the printer. This removes the need for a separate power supply and separate device drivers.

This is the simplest way to network a printer.



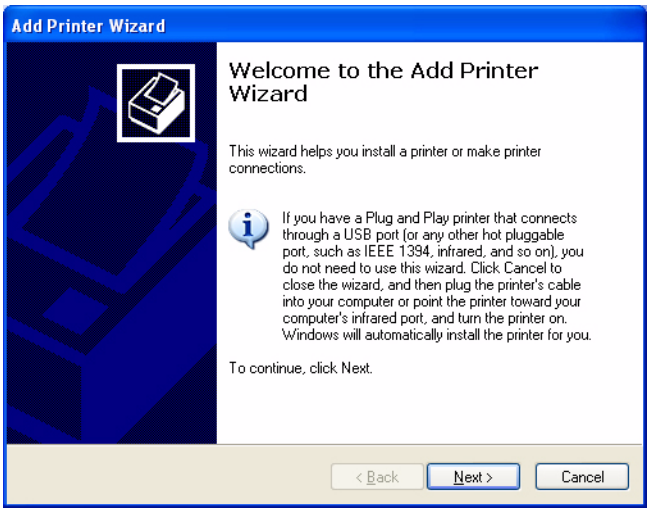
Setting Up a Network Printer

Use this procedure if you have already installed an ethernet printer on your system (refer to Section 2), and you want to install a second ethernet printer on the network via the Microsoft **Add Printer Wizard**.

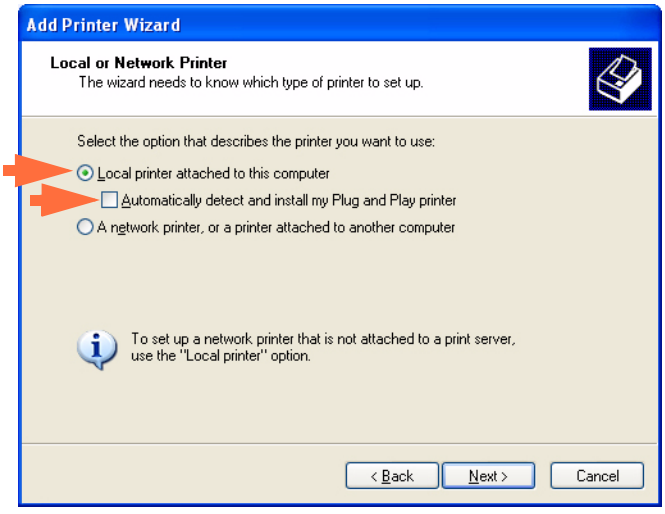
Step 1. Click on the **Start** button, then select *Settings* > *Printers and Faxes.*

Step 2. Click on the *Add a printer* option in the Printer Tasks sidebar.

Step 3. Observe the *Add Printer Wizard* window.


Add Printer Wizard
Welcome to the Add Printer Wizard
This wizard helps you install a printer or make printer connections.
If you have a Plug and Play printer that connects through a USB port (or any other hot pluggable port, such as IEEE 1394, infrared, and so on), you do not need to use this wizard. Click Cancel to close the wizard, and then plug the printer's cable into your computer or point the printer toward your computer's infrared port, and turn the printer on. Windows will automatically install the printer for you.
To continue, click Next.
< Back
Next >
Cancel

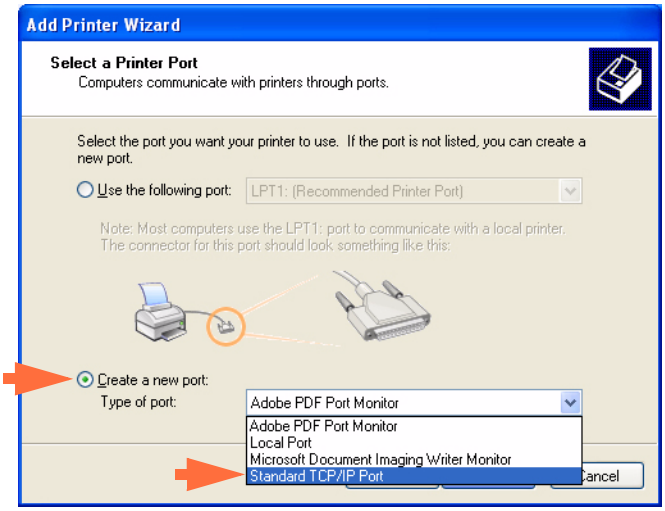
Step 4. Click on the **Next** button, and observe the *Local or Network Printer* window.


Add Printer Wizard
Local or Network Printer
The wizard needs to know which type of printer to set up.
Select the option that describes the printer you want to use:
Local printer attached to this computer
Automatically detect and install my Plug and Play printer
A network printer, or a printer attached to another computer
To set up a network printer that is not attached to a print server, use the "Local printer" option.
< Back
Next >
Cancel

Step 5. Select *Local printer attached to this computer.* Ensure *Automatically detect and install my Plug and Play printer* is **NOT** checked.

Step 6. Click on the **Next** button

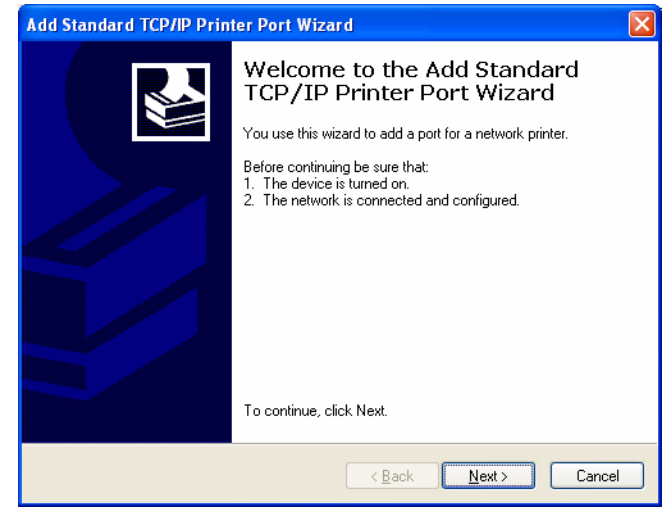
Step 7. Observe the *Select a Printer Port* window.


Add Printer Wizard
Select a Printer Port
Computers communicate with printers through ports.
Select the port you want your printer to use. If the port is not listed, you can create a new port.
Use the following port:
LPT1: (Recommended Printer Port)
Note: Most computers use the LPT1: port to communicate with a local printer. The connector for this port should look something like this:
Create a new port:
Type of port:
Adobe PDF Port Monitor
Adobe PDF Port Monitor
Local Port
Microsoft Document Imaging Writer Monitor
Standard TCP/IP Port
Cancel

Step 8. Click on the *Create a new port* radio button.

Step 9. From the dropdown menu, select *Standard TCP/IP Port*.

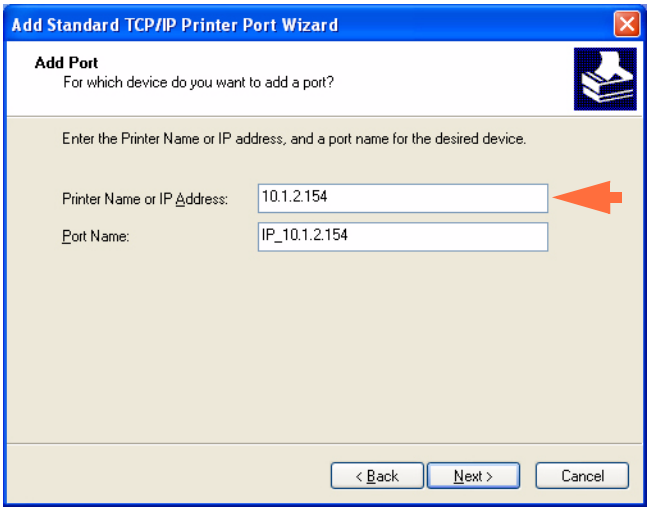
Step 10. Click on the **Next** button, and observe the *Add Standard TCP/IP Port Wizard* window.


Add Standard TCP/IP Printer Port Wizard
Welcome to the Add Standard TCP/IP Printer Port Wizard
You use this wizard to add a port for a network printer.
Before continuing be sure that:
1. The device is turned on.
2. The network is connected and configured.
To continue, click Next.
< Back
Next >
Cancel

Step 11. Be sure that your printer is turned on, and the network is connected and configured.

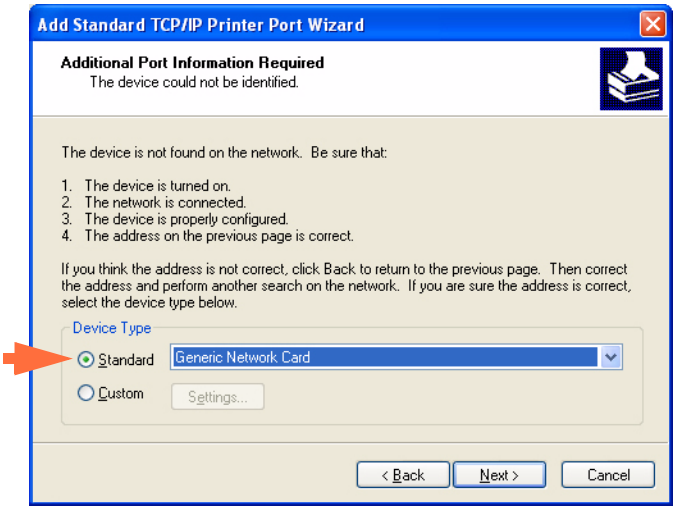
Step 12. Click on the **Next** button.

Step 13. Observe a second *Add Standard TCP/IP Port Wizard* window.


Add Standard TCP/IP Printer Port Wizard
Add Port
For which device do you want to add a port?
Enter the Printer Name or IP address, and a port name for the desired device.
Printer Name or IP Address:
10.1.2.154
Port Name:
IP_10.1.2.154
< Back
Next >
Cancel

Step 14. Enter the IP Address of your printer. Note that the Port Name will automatically be filled in when you enter the IP Address. **Do not change the Port Name**.

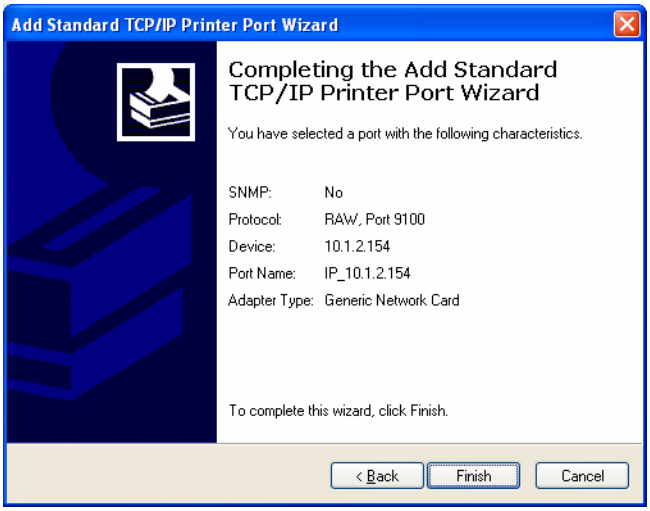
Step 15. Click on the **Next** button, and observe the *Additional Port Information Required* window.


Add Standard TCP/IP Printer Port Wizard
Additional Port Information Required
The device could not be identified.
The device is not found on the network. Be sure that:
1. The device is turned on.
2. The network is connected.
3. The device is properly configured.
4. The address on the previous page is correct.
If you think the address is not correct, click Back to return to the previous page. Then correct the address and perform another search on the network. If you are sure the address is correct, select the device type below.
Device Type
Standard
Generic Network Card
Custom
Settings...
< Back
Next >
Cancel

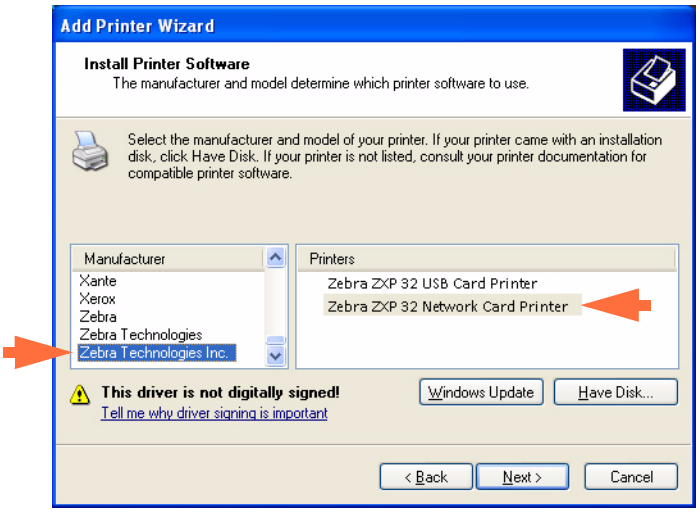
Step 16. Click on the *Standard* radio button; and from the dropdown menu, select *Generic Network Card*.

Step 17. Click on the **Next** button.

Step 18. Observe the *Completing the Add Standard TCP/IP Printer Port Wizard* window.


Add Standard TCP/IP Printer Port Wizard
Completing the Add Standard TCP/IP Printer Port Wizard
You have selected a port with the following characteristics.
SNMP: No
Protocol: RAW, Port 9100
Device: 10.1.2.154
Port Name: IP_10.1.2.154
Adapter Type: Generic Network Card
To complete this wizard, click Finish.
< Back
Finish
Cancel

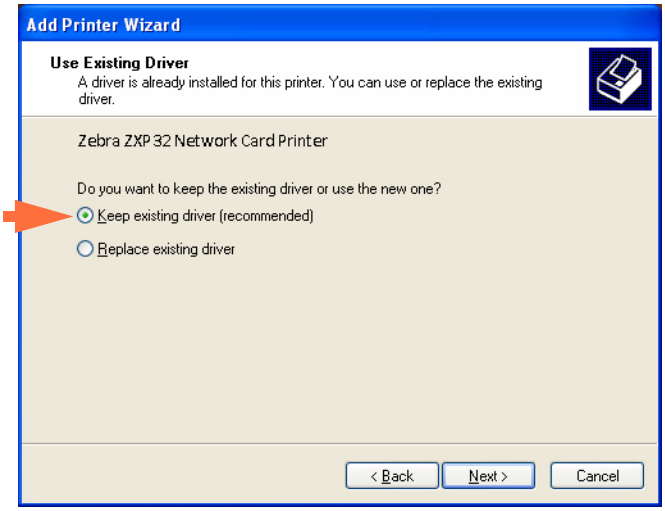
Step 19. Click on the **Finish** button, and observe the *Install Printer Software* window.


Add Printer Wizard
Install Printer Software
The manufacturer and model determine which printer software to use.
Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software.
Manufacturer
Xante
Xerox
Zebra
Zebra Technologies
Zebra Technologies Inc.
Printers
Zebra ZXP 32 USB Card Printer
Zebra ZXP 32 Network Card Printer
This driver is not digitally signed!
Tell me why driver signing is important
Windows Update
Have Disk...
< Back
Next >
Cancel

Step 20. Select the Manufacturer and the Printer.

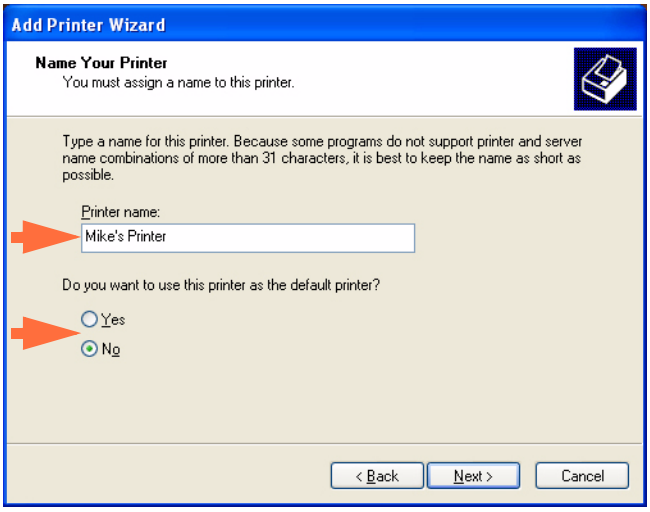
Step 21. Click on the **Next** button.

Step 22. Observe the *Use Existing Driver* window.


Add Printer Wizard
Use Existing Driver
A driver is already installed for this printer. You can use or replace the existing driver.
Zebra ZXP 32 Network Card Printer
Do you want to keep the existing driver or use the new one?
Keep existing driver (recommended)
Replace existing driver
< Back
Next >
Cancel

Step 23. Select the *Keep existing driver* radio button.

Step 24. Click the **Next** button, and observe the *Name Your Printer* window.

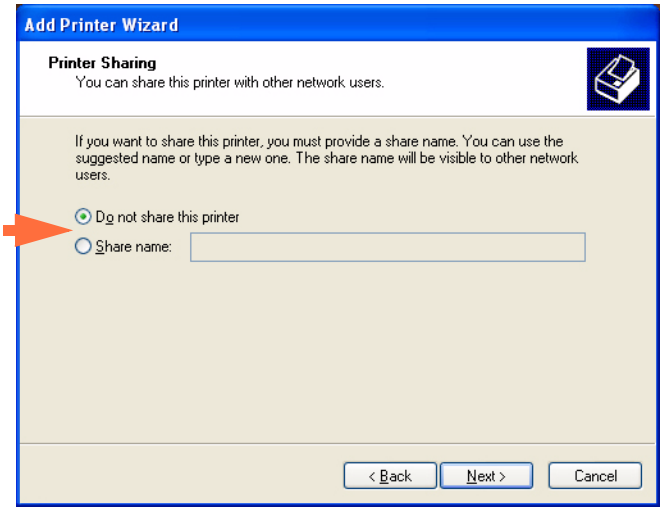

Add Printer Wizard
Name Your Printer
You must assign a name to this printer.
Type a name for this printer. Because some programs do not support printer and server name combinations of more than 31 characters, it is best to keep the name as short as possible.
Printer name:
Mike's Printer
Do you want to use this printer as the default printer?
Yes
No
< Back
Next >
Cancel

Step 25. Enter the printer name, use the default name, or add more information to indicate the printer location; e.g., Mike's Office, Hallway, Room 33, etc.

Step 26. Select the appropriate radio button in answer to the question *Do you want to use this printer as the default printer?*

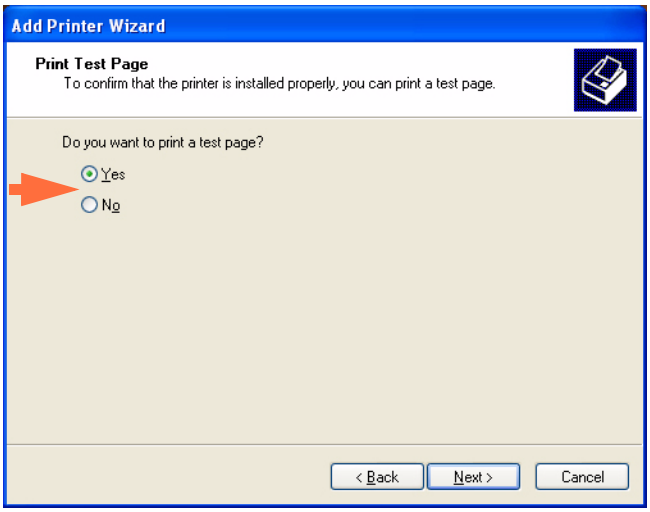
Step 27. Click the **Next** button.

Step 28. Observe the *Printer Sharing* window.


Add Printer Wizard
Printer Sharing
You can share this printer with other network users.
If you want to share this printer, you must provide a share name. You can use the suggested name or type a new one. The share name will be visible to other network users.
Do not share this printer
Share name:
< Back
Next >
Cancel

Step 29. Select the appropriate radio button in answer to the question *Do you want to share this printer...*? Enter the *Share name* if applicable.

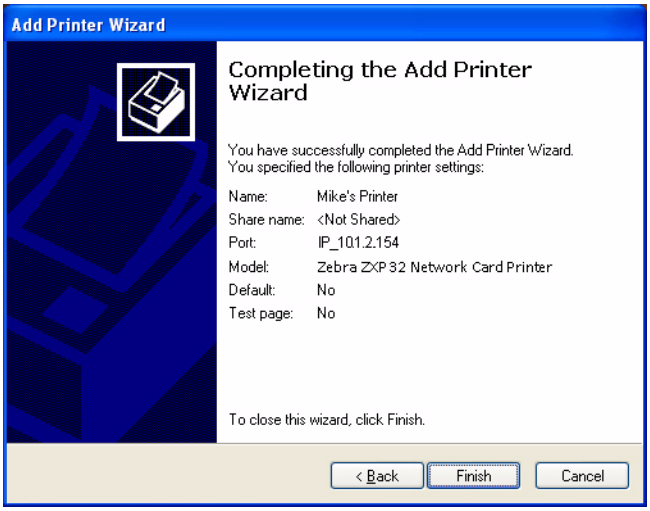
Step 30. Click the **Next** button, and observe the *Print Test Page* window.


Add Printer Wizard
Print Test Page
To confirm that the printer is installed properly, you can print a test page.
Do you want to print a test page?
Yes
No
< Back
Next >
Cancel

Step 31. Select the appropriate radio button in answer to the question *Do you want to print a test page?*

Step 32. Click the **Next** button.

Step 33. Observe the *Completing the Add Printer Wizard* window.



Step 34. Click on the **Finish** button to complete the *Add Printer Wizard*.

You have successfully installed the network printer.

Printer Pooling

Setting Up Printer Pooling

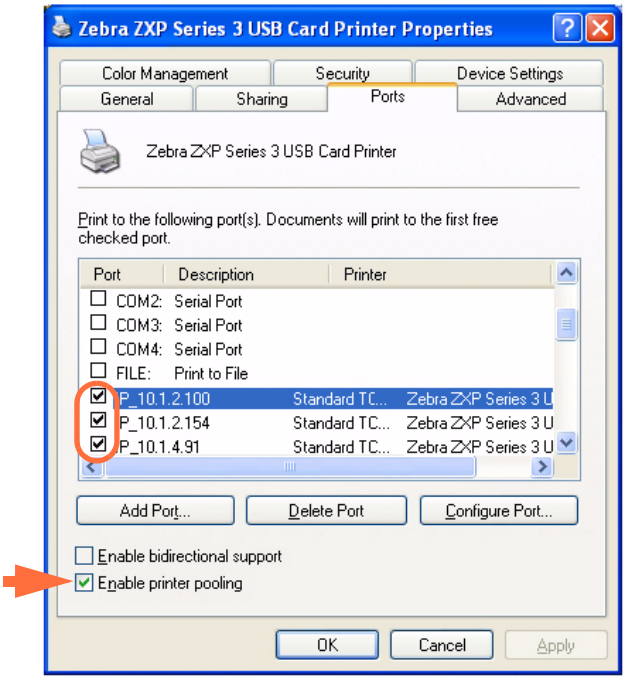
Printer Pooling is a standard feature of Windows, which lets you spread the printed output across a pool of several printers. In this example, we will install and setup the three network printers to be used for pooling.

Step 1. Before proceeding to pool the printers, test them individually, and be sure they are configured similarly. Specifically, check the following:

- Ribbon panel configuration (ribbon type, and what prints on which side of the card).
- Mag encoding configuration.
- Black extraction configuration (if applicable).

Step 2. Access the Ports Tab.

To access the Ports tab, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Series 3 USB Card Printer* listing. Select *Properties* > *Ports*.



Step 3. Select the *Enable printer pooling* checkbox (arrow above).

Step 4. Select the three printers by selecting the associated checkbox (circle above).

Using the Printer Pool

Important • Send print jobs to the printer pool, **not** to an individual printer.

When the first printer has taken as many jobs as it can handle (that being two jobs - one to be printed immediately, the other waiting), the following jobs “spill over” to the second printer, and then to the third printer.

Note that if you are only printing two jobs, they would both go to the first printer. Pooling is a spill-over methodology. It does not balance printer usage.

Once the pool has been set up, maintenance and configuration changes should be done through the menus for each individual printer, **not** through the pool (which can produce undesirable results).

Important • The effect of any maintenance and/or changes can (and should) be tested by sending print jobs **separately** to each printer, not to the pool.

Appendix B

Magnetic Encoder Option

Introduction

This section contains information on the additional operations of the ZXP Series 3 Card Printer with an optional Magnetic Encoder.

This section covers:

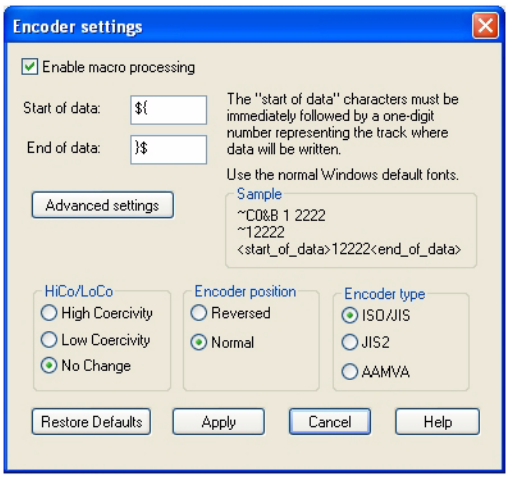
Driver Settings 90
Media Loading Orientation 92
Magnetic Encoder Cleaning 92
Magnetic Encoding Type 93

Driver Settings

Encoder Settings

The Encoder Settings dialog box is used for setting various Magnetic Encoder parameters. This feature is not enabled if the printer does not have the magnetic encoder option.

To access the Encoder Settings dialog box, select *Start* > *Settings* > *Printers and Faxes*. Right click on the *Zebra ZXP Card Printer* listing; then select *Properties* > *Device Settings* > *Encoder Settings*.

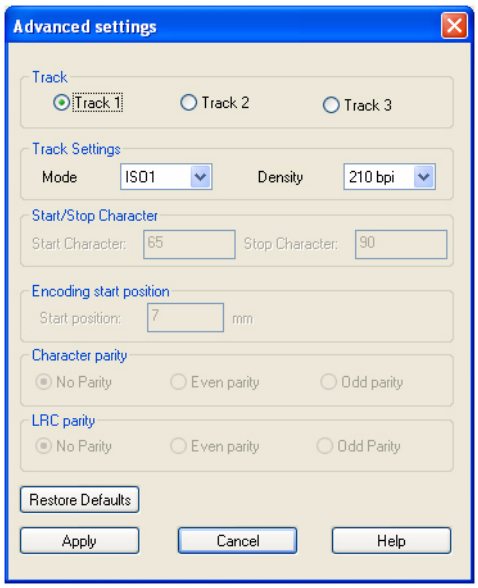


- **Enable macro processing** - This option will allow you to choose the encoding preamble.
- **Start of data** - Beginning of the data string for the encoder. Note that Start of Data characters must be immediately followed by a one-digit number representing desired track where the data will be written. Use the normal Windows default fonts.
- **End of data** - Ending of the data string for the encoder.
- **HiCo/LoCo** - Select the type of coercivity of magnetic stripe cards to be used. Coercivity is a measurement of a material's resistance to being magnetized. Low coercivity material magnetizes easier than high coercivity material.
- **Encoder position** - Select the printer encoder position between Reversed and Normal. Reversed is not supported by this printer.
- **Encoder type** - Select the type of encoder. JIS2 and AAMVA are not supported by this printer.

Click on the **Advanced Settings** button for additional encoding options; see Advanced Settings on page 91.

Advanced Settings

The Advanced Settings dialog box is used for primarily for Non-ISO encoding. You can make Track and Track Settings, but the other settings (Start/Stop Character, Encoding Start Position, Character Parity, and LRC Parity) are enabled only when a 3 bit, 4 bit, 5 bit, 6 bit, or 7 bit Track Setting is selected.



- **Track**: Select the track you want to configure.
- **Track Settings**: Select the Mode (ISO1, ISO2, ISO3, 3 bit, 4 bit, 5 bit, 6 bit, or 7 bit) and Density (75 bpi or 210 bpi) for the tracks.
- **Start/Stop Character** (For Non-ISO encoding only): Enter an ASCII value for the Start and Stop characters.
- **Encoding Start Position** (For Non-ISO encoding only): Enter the encoding start position in millimeters (mm).
- **Character Parity** (For Non-ISO encoding only): Choose the Character Parity you want to work with -- No parity, Even parity, or Odd parity.
- **LRC Parity** (For Non-ISO encoding only): Choose the LRC Parity you want to work with -- No parity, Even parity, or Odd parity.

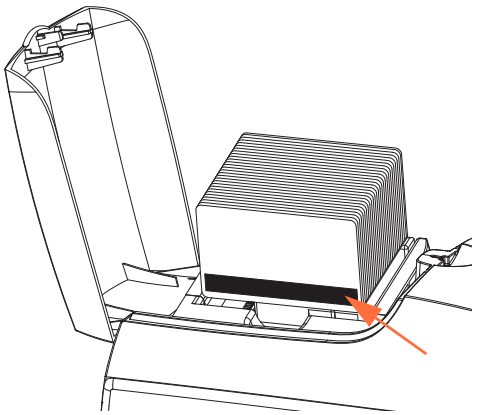
Click the **Restore Defaults** button to reset the settings to the original values.

Media Loading Orientation

Caution • ONLY USE cards that comply with ISO 7810 & 7811 standards for magnetic stripe cards. The magnetic stripe must be flush to the surface of the card to work properly. Never use cards which have taped-on magnetic stripes.

Note • Zebra-approved HiCo & LoCo PVC cards are available. (Reference ZXP Series 3 Card Printer Media List.)

When loading cards with magnetic stripes into the card feeder, please ensure that the magnetic stripe is facing the left side of the printer, and closest to the bottom edge of the card feeder.



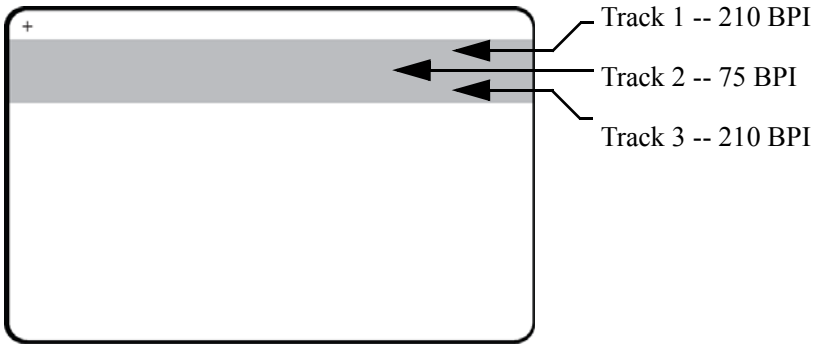
Magnetic Encoder Cleaning

Use the standard cleaning card process as described in Section 5, Cleaning. This cleans the most important parts of the printer; including the Printhead, Transport Roller, and Magnetic Stripe Encoder.

Magnetic Encoding Type

ISO (Default)

The encoder reads and writes standard ISO track data formats in standard ISO track locations. The following shows the three standard ISO tracks.



Each track can be encoded and decoded with ASCII characters in the standard default ISO data formats:

Track	Density (BPI)	Bits per character	Character parity	Length (characters)	LRC parity	Start sentinel	End sentinel	Start sentinel offset
1	210	7	Odd	76	Even	%	?	0.293" (7.4 mm)
2	75	5	Odd	37	Even	;	?	0.293" (7.4 mm)
3	210	5	Odd	104	Even	;	?	0.293" (7.4 mm)

The magnetic encoder can read or encode up to 3 tracks of digital information onto CR-80 cards incorporating a HiCo or LoCo magnetic stripe in the ISO 7811 format.

Encoding for the three tracks uses the ISO 7811 format.

- Track 1 uses 210 BPI (bits per inch) encoding in the International Air Transport Association (IATA) format of 79 alphanumeric characters, at 7 bits per character.
- Track 2 uses 75 BPI encoding to store 40 numeric characters at 5 bits per character in American Banking Association (ABA) format.
- Track 3 uses 210 BPI encoding of 107 numeric characters at 5 bits per character in THRIFT format.

The ISO data formats include a preamble (all zeros), a start character, data (7-bit or 5-bit as specified by ISO), a stop character, and a longitudinal redundancy check (LRC) character. The 7-bit data format has 6 bits of encoded data and a parity bit. The 5-bit data format has 4 bits of encoded data and a parity bit.

The ISO data formats include a data field separator (or delimiter) that allows parsing of the encoded track data. An example of separate data fields would be the ABA data format (Track 2) that includes a Primary Account Number (PAN) field and an account information field (for expiration date, country code, etc.).

AAMVA

The data stored on magnetic stripes on American driver's licenses is specified by the American Association of Motor Vehicle Administrators (AAMVA).

Alpha-numeric characters on Tracks 1 and 3, numerals only on Track 2.

Track	Density (bits per inch)	Bits per character	Character parity	Length (characters)	LRC parity	Start sentinel	End sentinel	Start sentinel offset inches (mm)
1	210	7	Odd	79	Even	%	?	0.293" (7.4)
2	75	5	Odd	37	Even	;	?	0.293" (7.4)
3	210	7	Odd	79	Even	%	?	0.293" (7.4)

CUSTOM

If a custom format is desired, the ISO standard format may be used as a starting point. The standard format can then be modified by assigning different values to any or all of the **density**, **character,** and **sentinel** attributes. (If any of these attributes is missing, its corresponding value in the standard ISO format will be substituted.)

BINARY

The binary option allows the user to specify directly the value for each bit on the mag stripe:.

In this “direct binary” mode, it is the host’s responsibility to fully populate the magnetic stripe; i.e., the hex data provided by the host must include the leading zeroes, start sentinel, data, end sentinel, LRC, and trailing zeroes. Note that the magnetic stripe is encoded from the right-hand end as viewed from the “stripe” side, with the stripe uppermost. The least significant bit of the data is encoded first.

A sufficient number of leading zeroes should be prepended to offset the start sentinel by approximately 0.3" (7.5 mm) from the right-hand end, as in the ISO format. Care should be taken to ensure that the payload data does not exceed the capacity of the tracks at their specified recording densities. (In the **binary** mode, out-of-range data is not recorded, and no error condition will result.)

A CR-80 size card has a nominal capacity of 252 bits per track at 75 BPI, and 708 bits at 210 BPI. These capacities equate approximately to 31 hex bytes (248 binary bits) and 88 hex bytes respectively.

APPENDIX C

Smart Card Options

Introduction

This Appendix contains information on the additional operations of a Printer equipped with one or more of the available Smart Card options

Smart Cards can have a built-in microcomputer and/or memory to store fingerprints, voice recognition patterns, medical records, and other such data. All other printer operations remain the same as the standard models.

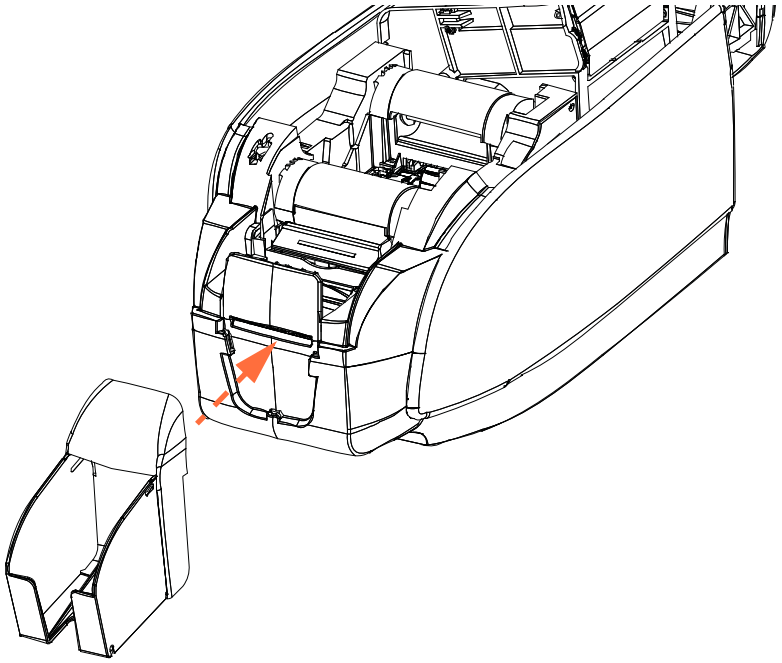
This section covers:

Output Hopper 96
Contact Smart Cards 97
Contactless Smart Cards 98
Contact Station 99

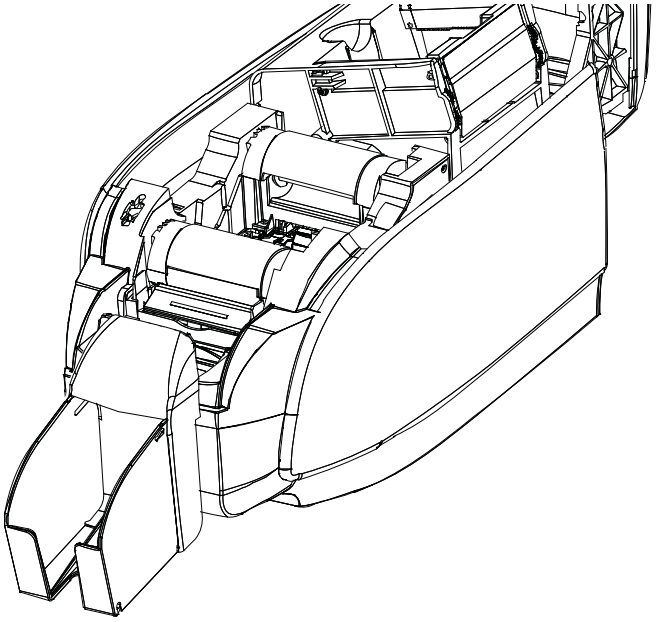
Output Hopper

The Output Hopper is positioned on the front of the Printer and receives the printed cards.

Step 1. Install the Output Hopper by inserting the four tabs on the hopper into the four slots on the front of the Printer.



Step 2. Ensure that the Output Hopper locks securely in place.



Contact Smart Cards

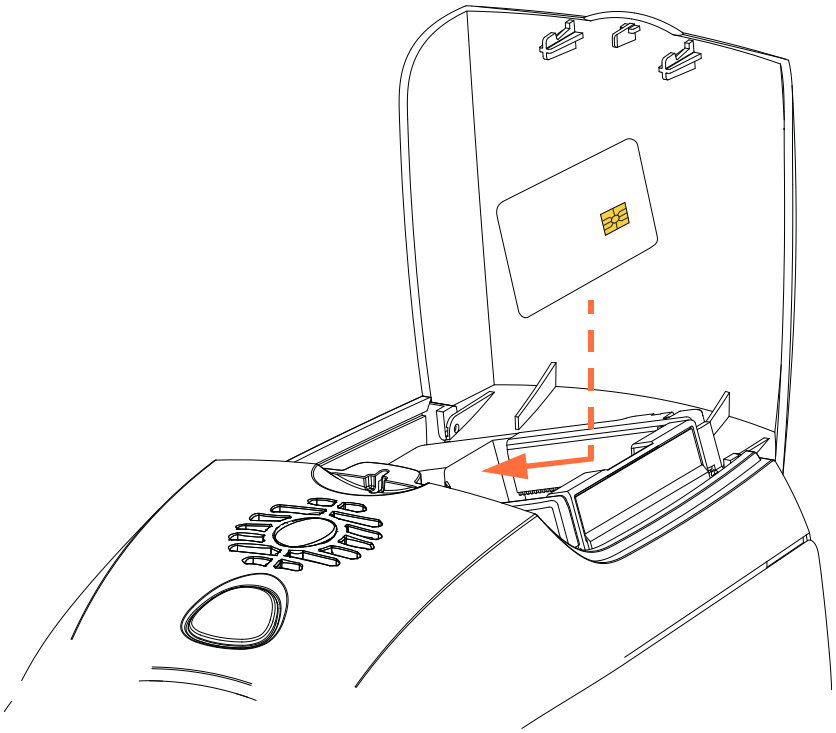
Contact Smart Cards have a pad of contacts on the surface of the card that connects to the circuitry embedded into the card.

Encoding data onto Smart Cards and reading the data previously encoded on them is totally under control of the application software; no operator action is required. If you experience any problems with encoding or reading data, refer to the users manual or other documentation for the application software.

All other printer operations remain the same as the standard models.

Media Loading Orientation for Contact Smart Cards

Place the cards in the Input Hopper in the correct orientation with the gold-plated Smart Card contacts at the top surface of the cards as shown. Ensure that the cards are seated properly in the hopper.



Printing on Contact Smart Cards

When designing material to be printed on Contact Smart Cards, be sure the printing will not be on the contact area.

Contactless Smart Cards

Rather than using a contact pad, Contactless Smart Cards use various short-range radio technologies to “connect” to the printer. The printer moves the card to an antenna location on the card path, and the encoding or decoding occurs.

All other printer operations remain the same.

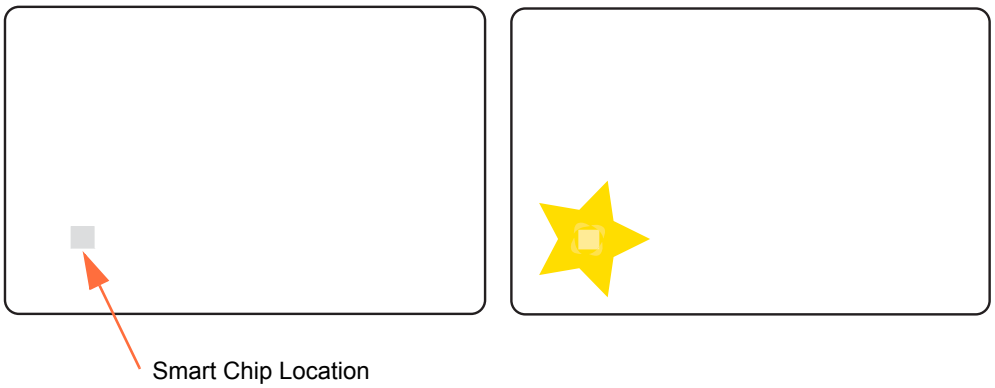
Media Loading Orientation for Contactless Smart Cards

For Contactless Smart Cards, orientation is not a consideration.

Printing on Contactless Smart Cards

When designing material to be printed on Contactless Smart Cards, be sure the printing will not be on the smart chip area; i.e., the printing on **either side of the card** must not be on top of or underneath the smart chip area.

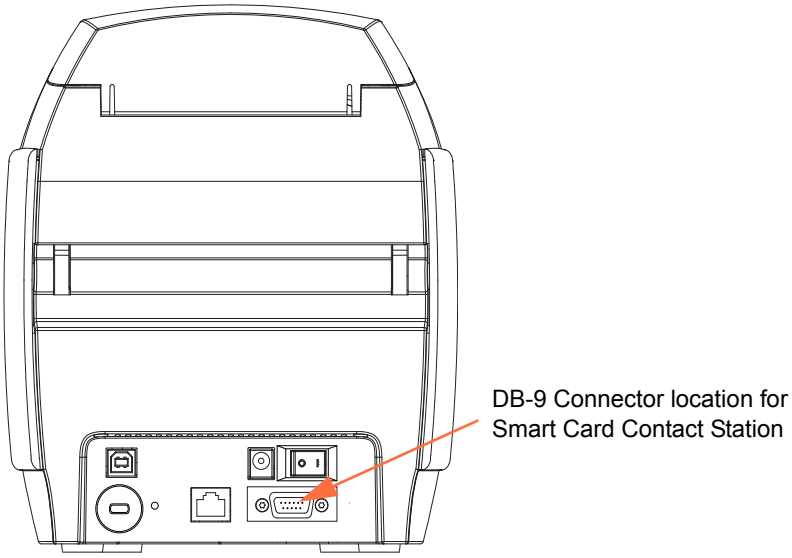
By looking at an un-printed card very carefully, it is possible to see the chip location (as in the figure on the left below). If you print in that area, results will be unsatisfactory (in the figure on the right, the “star” should have been a single solid color).



Contact Station

Smart Card Interface

When a command to the printer interface sends a card to the Smart Card Contact Station, the printer connects the Smart Card Contact Station to the female DB-9 connector on the rear of the printer.



DB-9 Connector (detail)

An attached external Smart Card Programmer can be used to program Smart Card chips. The following table shows the Smart Card Contact Points.

Pin	Smart Card Contact Points	DB-9	Smart Card Contact Points
1	C1 (VCC)	6	C6 (Vpp)
2	C2 (Reset)	7	C7 (I/O)
3	C3 (Clock)	8	C8 (RFU)
4	C4 (RFU)	9	(GND when chip is at station)
5	C5 (GND)		

Appendix D

CardSense™ Single Card Feed Mode

Introduction

For operating the ZXP Series 3 Card Printer in single card feed mode, the printer requires that the operator install an optional CardSense Single Card Feed Kit.

In Single Card Feed Mode, the printer will only accept cards through the front slot, not from the card feeder.

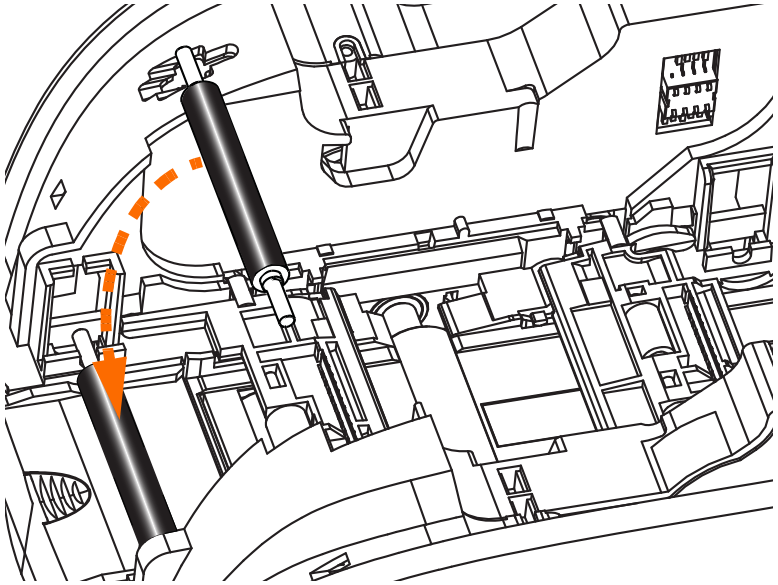
Installing the CardSense Single Card Feed Kit

Step 1. Turn printer power OFF.

Step 2. Open the lid, and remove the ribbon cartridge.

Important • Make sure the output hopper remains closed.

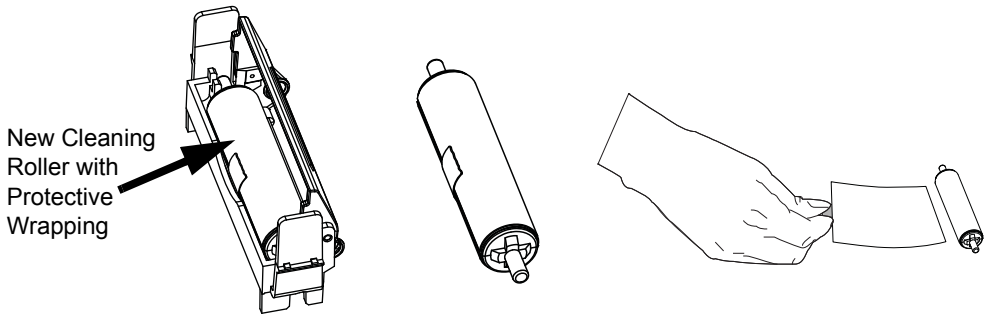
Step 3. Install the black roller. Place it between the blue clips just behind the card entry slot, and press the roller straight down so it is fully seated.



Step 4. While holding the roller down, turn power ON. You will hear a loud click as the clips secure the roller.

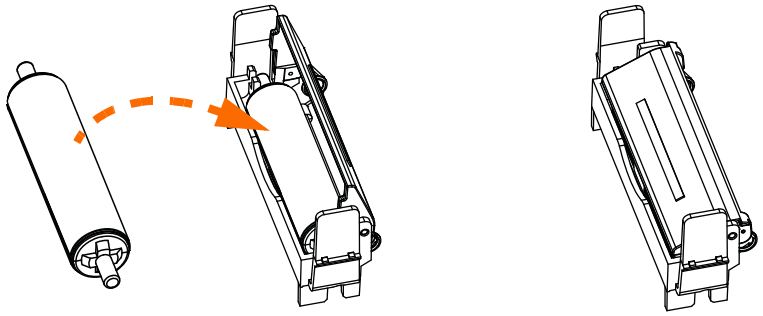
Step 5. At this point, let go of the roller, and then turn printer power OFF.

Step 6. Open the Cleaning Cartridge. The new Cleaning Cartridge will contain a Cleaning Roller with its protective wrapping.

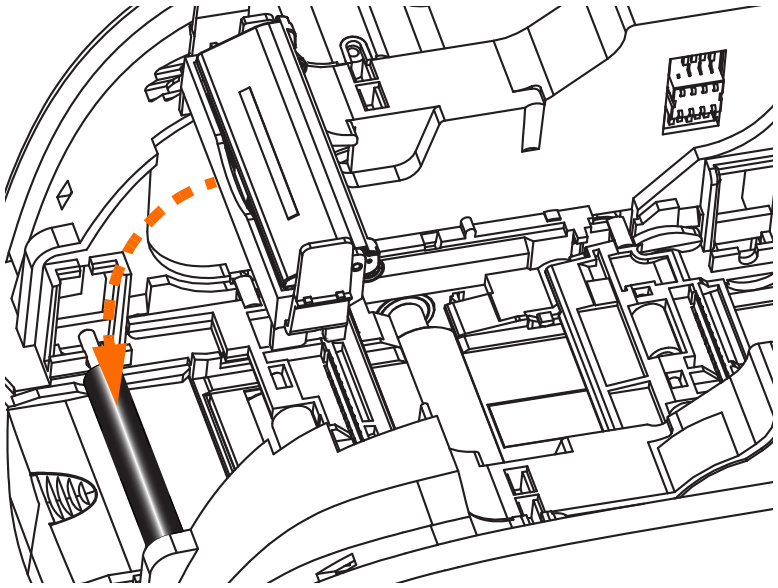


Step 7. Remove the Cleaning Roller from the Cleaning Cartridge, and then remove the protective wrapper from the Cleaning Roller,

Step 8. Place the Cleaning Roller in the Cartridge, and close the lid.



Step 9. The Cleaning Cartridge is held in place by two clips. While gently squeezing the clips inward, press the cartridge into place. It will seat with a click.



Step 10. Insert the Ribbon Cartridge with the cleaning roller facing down, so the gears on the ends of the rollers fit into the appropriate slots.

Step 11. Close the printer lid, and push down until you hear an audible click. If you can not close the lid, the cleaning cartridge or the ribbon cartridge may be installed wrong.

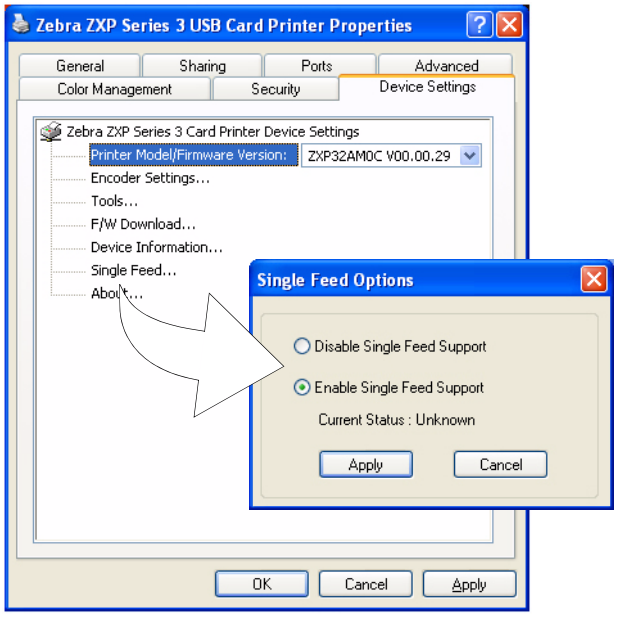
Step 12. Place the printer power switch in the ON (|) position.

Setting Up the Printer Driver

Step 1. Open Printers and Faxes (click **Start > Settings > Printers and Faxes**).

Step 2. Right-click the printer for which you want to change settings, then click **Properties**.

Step 3. Select the **Device Settings** tab.



Step 4. Select **Single Feed ...**

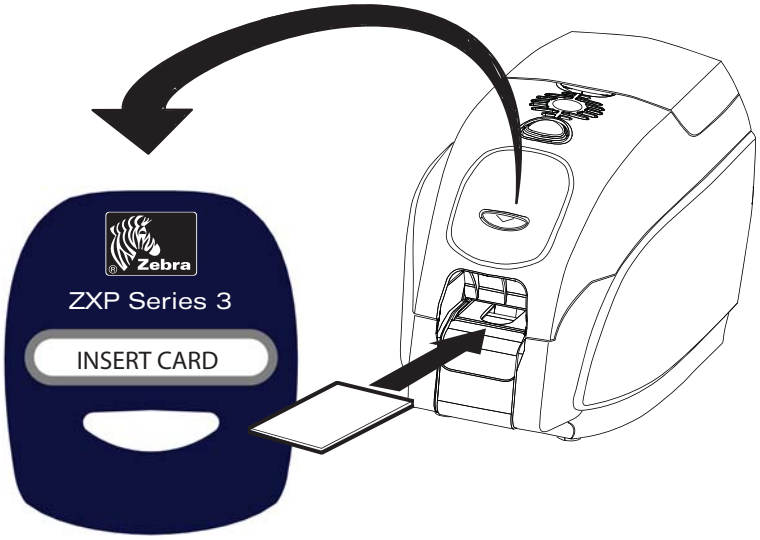
Step 5. From the Single Feed Options window, select **Enable Single Feed Support**.

Step 6. Click the **Apply** button.

Important • You can disable Single Feed Support and return to printing cards from the hopper. You do not have to remove the components of the Single Card Feed Kit in order to operate in normal mode.

Printing a Single Card

Step 1. Cards are inserted one at a time into the slot on the front of the printer. Do not feed more than one card at a time. Note that the card must be fully inserted before printer turns on and accepts the card.



Step 2. The card is printed.

Step 3. The printed card is ejected out through the same (input) slot.

Note • If single-card feeding will be the normal mode of operation, you may select that mode through the driver software. In single card feed mode, the card will not be printed until the print job has been sent to the printer and the card to be printed has been inserted into the single card feed slot

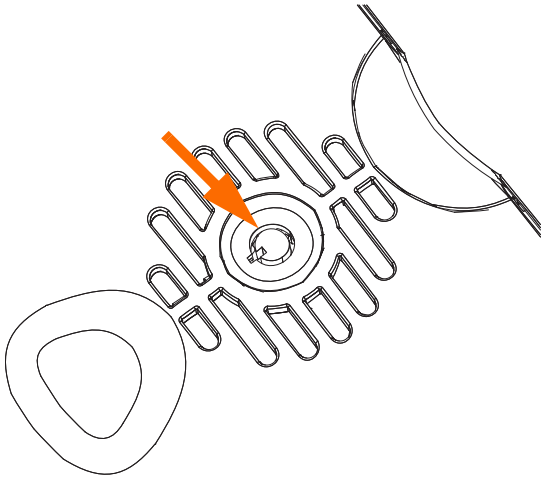
Appendix E

Enclosure Lock Option

Introduction

The Enclosure Lock Option can either be factory-installed or added as an upgrade.

This option ensures that only authorized personnel have physical access to the print media (ribbon and cards). When locked, neither the Lid nor the Card Feeder Cover can be opened.



- Turn the key clockwise to **unlock** the printer. Note that when unlocked, the key cannot be removed from the lock.
- Turn the key counter-clockwise to **lock** the printer, then remove the key.

Appendix F

Worldwide Support

For Technical Support or Repair Services, contact the appropriate facility listed below.

North America and Latin America - Technical Support

T: +1 877 ASK ZEBRA (877 275 9327)
+1 847 913 2259
E: ts1@zebra.c om

North America and Latin America - Repair Services

Before returning any equipment to Zebra Technologies Corporation for in-warranty or out-of-warranty repair, contact Repair Services for a Repair Order (RO) number. Mark the RO number clearly on the outside of the box. Ship the equipment, freight prepaid, to the address listed below:

Zebra Technologies Repair Services
333 Corporate Woods Parkway
Vernon Hills, IL 60061

webform: www.zebra.com/repair
T: 1 -877-275-9327
E: repair@zebra.com

Europe, Middle East, and Africa - Technical Support

Language	Phone	Email
German	+49 (0) 2159 676 870	zebratechDE@zebra.com
French	+33 (0) 1 53 48 12 74	zebratechFR@zebra.com
English	+44 (0) 1628 556 225	zebratechUK@zebra.com

For further assistance, contact:

Zebra Technologies Card Printer Solutions
Dukes Meadow
Millboard Road, Bourne End
Buckinghamshire SL8 5XF, UK

T: +44 (0) 1628 556 025
F: +44 (0) 1628 556 001
E: cardts@zebra.com

Europe, Middle East, and Africa - Repair Services

Before returning any equipment to Zebra Technologies Corporation for in-warranty or out-of-warranty repair, contact your supplier for a Return Materials Authorization (RMA) number, or contact one ot the following repair centers for support and instructions:

Type of repair and location	Phone	Email
Depot Repair in Germany, Austria, Switzerland	+49 (0) 2159 676 870	zebracareDE@zebra.com
Depot Repair in France	+33 (0) 1 53 48 12 74	zebracareFR@zebra.com
Depot and On-Site Repair in UK and Ireland	+44 (0) 1628 556 225	zebracareUK@zebra.com
Depot Repair in South Africa	+27 (0) 11 201 7777	-
Depot Repair in the Middle East	+971 (0) 46058220	support_dxb@emitac.ae

For further assistance, contact:

For assistance anywhere in the EMEA, contact After Sales Customer Services at:

T: + 44 (0) 177 2 69 3069
E: ukrma@ze bra.com

Asia Pacific - Technical Support

Zebra Technologies Asia Pacific Pte. Ltd.
120 Robinson Road
#06-01 Parakou Building
Singapore 068913

T: +6 5 6858 0722
F: +6 5 6885 0838
E: tsasiapacific@zebra.com

Asia Pacific - Repair Services

Before returning any equipment to Zebra Technologies Corporation for in-warranty or out-of warranty repair, contact Repair Services for a Return Materials Authorization (RMA) number. Repack the equipment in the original packing material, and mark the RMA number clearly on the outside. Ship the equipment, freight prepaid, to either address listed below:

Zebra Technologies Asia Pacific Pte. Ltd.
No.5 Changi North Way Level 3
Singapore 498771
Agility Building

T: +65 6546 2670 ext 3203 and 3204
F: +6 5 6546 5328
E: AP ACRepair@zebra.com

Zebra Website

http://www.zebra.com